

## author index

**Index of Issues:** July, pp 1-144; August, pp 145-296; September, pp 297-472; October, pp 473-640; November, pp 641-808; December, pp 809-984. Page numbers beginning with S denote articles in the December Pathology Patterns Reviews.

**A**

Aalto, Marja-Leena, 217  
 Abraham, Susan C., 828  
 Abrahams, Neil A., 368  
 Adler, Brian K., 938  
 Agoff, S. Nicholas, 725  
 Aller, Raymond D., 817  
 Amos, Jean A., S3  
 Ansari-Lari, M. Ali, 795  
 Antoine, Jean-Claude, 567  
 Anwar, Shahgul, S72, S85  
 Apple, Fred S., 114  
 Arber, Daniel A., 64  
 Argenyi, Zsolt B., 203  
 Ashfaq, Raheela, 685  
 Association of Directors of  
 Anatomic and Surgical  
 Pathology, 652  
 Astion, Michael L., 18  
 Athanasiou, Athanasios, 699  
 Au, Wing Y., 626  
 Aubert, Jean-Pierre, 544  
 Aubert, Sebastien, 544  
 Ayala, Alberto G., 161  
 Ayala, Gustavo, 528  
 Ayers, Mark, S53  
 Azar, Miguel, 554

**B**

Bahler, David W., 228  
 Baker, K. Scott, 101  
 Baliff, Jeffrey P., S14  
 Baloch, Zubair W., 175  
 Barbero, Fabio, 944  
 Bardales, Ricardo H., 398  
 Barnhill, Raymond L., 203  
 Bartlett, Jeanine, 833  
 Baschinsky, Dmitry Y., 377  
 Beck, Rose C., 785  
 Becker, Albert J., 691  
 Behm, Frederick G., 617

Beliaeva, Irina V., 377  
 Berthold, Heike, 586  
 Bertolini, Federica, 706  
 Biasiolo, Alessandra, 944  
 Biller, Beverly M.K., S38  
 Birner, Peter, 107  
 Bläker, Hendrik, 418  
 Bloom, Kenneth J., S53  
 Bock, Brian J., 662  
 Boguniewicz, Ann, S72  
 Borowitz, Michael J., 795  
 Bostwick, David G., 368  
 Bouillac, Christelle, 492  
 Brainard, Jennifer A., 368  
 Brisbin, Lorraine, 268  
 Brousset, Pierre, 567  
 Brown, Donald, 882  
 Browne, Patrick, 767  
 Budimlija, Zoran M., 746  
 Bueso-Ramos, Carlos, 236,  
 246  
 Buisine, Marie-Pierre, 544  
 Burchette, James L., Jr, 575  
 Burgaleta, Carmen, 28  
 Büttner, Reinhard, 691

**C**

Cameron, John L., 685  
 Cangiarella, Joan, 194  
 Carlson, J. Andrew, S101  
 Cartier, Isabelle, 492  
 Casey, Mary B., 56  
 Catovsky, Daniel, 754  
 Cavazza, Alberto, 706  
 Chan, Amy B.W., 168  
 Chan, Joel A., 767  
 Chandler, Wayne L., 34  
 Chang, Alexander R., 168  
 Chang, Chung-Che, 322  
 Chang, Julia Yu-Fong, 909  
 Chen, Yeu-Chin, 874

Cheng, Liang, 386  
 Chhieng, David C., 351, 392  
 Chiang, Chun-Pin, 909  
 Chiesa-Vottero, Andres G.,  
 902  
 Chinnaiyan, Arul M., 737  
 Chmielewski, Gary W., 720  
 Chou, Jung-Mao, 874  
 Christie, John D., 820  
 Chu, Peiguo G., 64  
 Clark, Edward, S53  
 Cochand-Priollet, Béatrix,  
 492  
 Colgan, Terence J., 405  
 Copin, Marie-Christine, 544  
 Cornfield, Dennis, 49  
 Corver, Willem E., 327  
 Coste, Joël, 492  
 Cotelingam, James D., 882  
 Crowson, A. Neil, 662  
 Crum, Christopher P., 483  
 Cruz, Juan J., 917  
 Cucchini, Umberto, 944  
 Curry, Sherry, 882

**D**

Daggy, Joanne K., 386  
 Dasgupta, Amitava, 127  
 Dawson, Jacqueline, 845  
 de Cremoux, Patricia, 492  
 de Leon-Bojorge, Beatriz,  
 845  
 Delgado, Julio, 754  
 del Giudice, Ilaria, 754  
 de Miguel, Dunia, 28  
 Desgruelles, Chantal, 676  
 Devisme, Louise, 544  
 Diebold, Joachim, 78  
 Dimech, Wayne, 312  
 Dolan, C. Terrence, 662  
 Dolan, Michelle M., 778

Dominguez, Hugo, 182  
 Dorfman, David M., 866  
 Dosda, Anne, 492  
 Duray, Paul H., 203

**E**

Eberhard, Mark, 833  
 Eble, John N., 386  
 Effert, Peter J., 188  
 Eichelberger, Lori E., 386  
 Elenitsas, Rosalie, 203  
 Eloubeidi, Mohamad A., 351  
 Eltoum, Isam A., 351, 392  
 Erdman, Dean, 845  
 Eskin, Thomas A., 732  
 Espinosa, Ana B., 917  
 Estacio, Sheila M., 746

**F**

Farrell, Michael A., 56  
 Fazzari, Melissa J., 93  
 Federschneider, Jerome M.,  
 483  
 Ferebee-Harris, Tara, 845  
 Ferkowicz, Monica, 86, 720  
 Ferrell, Chris, 34  
 Ferri, Clodoveo, 596  
 Ferrieri, Patricia, 554  
 Finn, William G., 335  
 Fischer, Andrew H., 71  
 Fisher, Hugh A.G., S85  
 Fitter, William F., 662  
 Fletcher, Jonathan A., S53  
 Fong, Andrew, 93  
 Font de Mora, Jaime, 917  
 Fortini, Alexandre S., 672  
 French Society of Clinical  
 Cytology Study Group, 492  
 Friedrich, David, 839  
 Fritsma, George A., 938

## author index

**Index of Issues:** July, pp 1-144; August, pp 145-296; September, pp 297-472; October, pp 473-640; November, pp 641-808; December, pp 809-984. Page numbers beginning with S denote articles in the December Pathology Patterns Reviews.

**A**

Aalto, Marja-Leena, 217  
 Abraham, Susan C., 828  
 Abrahams, Neil A., 368  
 Adler, Brian K., 938  
 Agoff, S. Nicholas, 725  
 Aller, Raymond D., 817  
 Amos, Jean A., S3  
 Ansari-Lari, M. Ali, 795  
 Antoine, Jean-Claude, 567  
 Anwar, Shahgul, S72, S85  
 Apple, Fred S., 114  
 Arber, Daniel A., 64  
 Argenyi, Zsolt B., 203  
 Ashfaq, Raheela, 685  
 Association of Directors of  
 Anatomic and Surgical  
 Pathology, 652  
 Astion, Michael L., 18  
 Athanasiou, Athanasios, 699  
 Au, Wing Y., 626  
 Aubert, Jean-Pierre, 544  
 Aubert, Sebastien, 544  
 Ayala, Alberto G., 161  
 Ayala, Gustavo, 528  
 Ayers, Mark, S53  
 Azar, Miguel, 554

**B**

Bahler, David W., 228  
 Baker, K. Scott, 101  
 Baliff, Jeffrey P., S14  
 Baloch, Zubair W., 175  
 Barbero, Fabio, 944  
 Bardales, Ricardo H., 398  
 Barnhill, Raymond L., 203  
 Bartlett, Jeanine, 833  
 Baschinsky, Dmitry Y., 377  
 Beck, Rose C., 785  
 Becker, Albert J., 691  
 Behm, Frederick G., 617

Beliaeva, Irina V., 377  
 Berthold, Heike, 586  
 Bertolini, Federica, 706  
 Biasiolo, Alessandra, 944  
 Biller, Beverly M.K., S38  
 Birner, Peter, 107  
 Bläker, Hendrik, 418  
 Bloom, Kenneth J., S53  
 Bock, Brian J., 662  
 Boguniewicz, Ann, S72  
 Borowitz, Michael J., 795  
 Bostwick, David G., 368  
 Bouillac, Christelle, 492  
 Brainard, Jennifer A., 368  
 Brisbin, Lorraine, 268  
 Brousset, Pierre, 567  
 Brown, Donald, 882  
 Browne, Patrick, 767  
 Budimlija, Zoran M., 746  
 Bueso-Ramos, Carlos, 236,  
 246  
 Buisine, Marie-Pierre, 544  
 Burchette, James L., Jr, 575  
 Burgaleta, Carmen, 28  
 Büttner, Reinhard, 691

**C**

Cameron, John L., 685  
 Cangiarella, Joan, 194  
 Carlson, J. Andrew, S101  
 Cartier, Isabelle, 492  
 Casey, Mary B., 56  
 Catovsky, Daniel, 754  
 Cavazza, Alberto, 706  
 Chan, Amy B.W., 168  
 Chan, Joel A., 767  
 Chandler, Wayne L., 34  
 Chang, Alexander R., 168  
 Chang, Chung-Che, 322  
 Chang, Julia Yu-Fong, 909  
 Chen, Yeu-Chin, 874

Cheng, Liang, 386  
 Chhieng, David C., 351, 392  
 Chiang, Chun-Pin, 909  
 Chiesa-Vottero, Andres G.,  
 902  
 Chinnaiyan, Arul M., 737  
 Chmielewski, Gary W., 720  
 Chou, Jung-Mao, 874  
 Christie, John D., 820  
 Chu, Peiguo G., 64  
 Clark, Edward, S53  
 Cochand-Priollet, Béatrix,  
 492  
 Colgan, Terence J., 405  
 Copin, Marie-Christine, 544  
 Cornfield, Dennis, 49  
 Corver, Willem E., 327  
 Coste, Joël, 492  
 Cotelingam, James D., 882  
 Crowson, A. Neil, 662  
 Crum, Christopher P., 483  
 Cruz, Juan J., 917  
 Cucchini, Umberto, 944  
 Curry, Sherry, 882

**D**

Daggy, Joanne K., 386  
 Dasgupta, Amitava, 127  
 Dawson, Jacqueline, 845  
 de Cremoux, Patricia, 492  
 de Leon-Bojorge, Beatriz,  
 845  
 Delgado, Julio, 754  
 del Giudice, Ilaria, 754  
 de Miguel, Dunia, 28  
 Desgruelles, Chantal, 676  
 Devisme, Louise, 544  
 Diebold, Joachim, 78  
 Dimech, Wayne, 312  
 Dolan, C. Terrence, 662  
 Dolan, Michelle M., 778

Dominguez, Hugo, 182  
 Dorfman, David M., 866  
 Dosda, Anne, 492  
 Duray, Paul H., 203

**E**

Eberhard, Mark, 833  
 Eble, John N., 386  
 Effert, Peter J., 188  
 Eichelberger, Lori E., 386  
 Elenitsas, Rosalie, 203  
 Eloubeidi, Mohamad A., 351  
 Eltoum, Isam A., 351, 392  
 Erdman, Dean, 845  
 Eskin, Thomas A., 732  
 Espinosa, Ana B., 917  
 Estacio, Sheila M., 746

**F**

Farrell, Michael A., 56  
 Fazzari, Melissa J., 93  
 Federschnieder, Jerome M.,  
 483  
 Ferebee-Harris, Tara, 845  
 Ferkowicz, Monica, 86, 720  
 Ferrell, Chris, 34  
 Ferri, Clodoveo, 596  
 Ferrieri, Patricia, 554  
 Finn, William G., 335  
 Fischer, Andrew H., 71  
 Fisher, Hugh A.G., S85  
 Fitter, William F., 662  
 Fletcher, Jonathan A., S53  
 Fong, Andrew, 93  
 Font de Mora, Jaime, 917  
 Fortini, Alexandre S., 672  
 French Society of Clinical  
 Cytology Study Group, 492  
 Friedrich, David, 839  
 Fritsma, George A., 938

Fritzler, Marvin, 312  
 From, Lynn, 203  
 Fu, Kai, 760  
 Furth, Emma E., 175

## G

Gaffney, Robyn L., 56  
 Gandhi, Manoj, 71  
 Garcia, Christine, S38  
 Garcia, Ediberto, 93  
 García-Macías, Maria C., 917  
 Gard, Kathy M., 930  
 Garnett, C.T., 845  
 Gatalica, Zoran, 161  
 Glaichenhaus, Nicolas, 567  
 Glanz, Steven M., 732  
 Glimcher, Laurie H., 866  
 Goeken, James, 312  
 Goldstein, Neal S., 86, 500, 720  
 Gómez Alonso, Alberto, 917  
 Gómez Bernal, Amalia, 917  
 Gooding, Linda, 845  
 Gorczyca, Wojciech, 49  
 Gorgoulis, Vassilis G., 699  
 Gosselin, Bernard, 544  
 Graves, Kerry, 161  
 Green, Ileana, 209  
 Greenwood, Jay H., 228  
 Guarner, Jeannette, 833, 845  
 Guitart, Joan, 203  
 Gulbahe, H. Evin, 101  
 Gustafson, Karen S., 175  
 Gwynn, Lucas, 93

## H

Hadziyannis, Emilia, 265  
 Hagen, E. Chris, 312  
 Haitel, Andrea, 107  
 Hale, Laura P., 575  
 Hall, Gerri S., 265  
 Hamill, Tim R., 18  
 Han, Xiang Y., 256  
 Hansel, Donna E., 685  
 Hao, Suyang, 246  
 Hartsell, Brent D., 662  
 Hartung, Leah, 228  
 Harwood, Emma L., 617  
 Hassanein, Ashraf M., 732  
 Hastah, Farnaz, 86  
 Hawes, Stephen E., 725  
 Heinonen, Seppo T., 217  
 Helsel, Leta O., 256  
 Hemmerlein, Bernhard, 888  
 Henderson, Terry A., 268  
 Hernandez, Antonio, 767  
 Hill, Jerome, S101  
 Hiroi, Sadayuki, 712  
 Hofman, Paul, 567  
 Hofman, Véronique, 567

Horenstein, Marcelo G., 203  
 Hortobagyi, Gabriel N., S53  
 Hsi, Eric D., 785  
 Huitema, Minke G., 586

## I

Ikeda, Eiji, 712  
 Illiceto, Sabino, 944  
 International Group for  
 Consensus Statement on  
 Testing and Reporting of  
 AntineutrophilCytoplas-  
 mic Antibodies (ANCA),  
 312  
 Ishag, Mona T., 377

## J

Jackson, J. Brooks, 268  
 Jan, E., 405  
 Jasionowski, Tammy M., 228  
 Jatoi, Aminah, S25  
 Jennette, J. Charles, 312  
 Jennings, Timothy A., S85  
 Jhala, Darshana N., 351  
 Jhala, Nirag C., 351  
 Johnson, Marcella M., 203  
 Jones, Carol D., 42  
 Jordanova, Ekaterina S., 327

## K

Kabani, Amin, 560  
 Kallakury, Bhaskar V.S., S85  
 Kallenberg, Cees G.M., 586  
 Kaltenbach, Jenny, 882  
 Kannangai, Rajesh, 828  
 Kansal, Rina, 335  
 Katzmann, Jerry A., 672  
 Kauffman, Ronald A., S85  
 Kawai, Toshiaki, 712  
 Keren, David F., 649  
 Keski-Nisula, Leea T., 217  
 Kessler, Harvey P., 732  
 Kestin, Larry, 500, 720  
 Ketterling, Rhett P., 874  
 Kha, Hien, 34  
 Khalil, Zena, 554  
 Kickler, Thomas S., 795  
 Kim, Sara, 18  
 Kirkinen, Pertti P., 217  
 Kittas, Christos, 699  
 Kjeldahl, Clint, 101  
 Klauck, Sabine, 536  
 Klibanski, Anne, S38  
 Klimstra, David S., 209  
 Kluin, Philip M., 327  
 Knight, Deborah A., 596  
 Koch, Michael O., 386  
 Kosma, Veli-Matti, 217  
 Koteish, Ayman, 828

Krishnan, Bhuvaneswari,  
 528  
 Kumaki, Fumiyuki, 712  
 Kumar, Pragati, 101  
 Kung, Fred Y.L., 168  
 Kunju, Lakshmi P., 737  
 Kussick, Steven J., 854  
 Kwong, Yok L., 626

## L

Labbé, Sylvain, 492  
 Lai, Raymond, 246  
 Lai, Rebecca, 398  
 Lam, Clarence C.K., 626  
 Lamant, Laurence, 567  
 Laroche, Pascale, 676  
 Latif, Shahnila, 882  
 Law, Bonita K.B., 168  
 Lawton, Thomas J., 725  
 Lechago, Juan, 528  
 Lee, Irene, 194  
 Lee, Joo, 34  
 Leers, Math P.G., 327  
 Le Galès, Catherine, 492  
 Leroy, Xavier, 544  
 Letendre, Louis, 874  
 Levett, Paul N., 256  
 Lewis, Eugene H., III, S3  
 Lewis, Jason T., 56  
 Lewis, Myra J., S3  
 Li, Chin-Yang, 874  
 Li, Maomi, 93  
 Lie, Albert K.W., 626  
 Limburg, Pieter C., 586  
 Lin, Ming-Chieh, 909  
 Lin, Oscar, 209  
 Lin, Pei, 246  
 Linden, Hannah, 725  
 Linette, Gerald P., S53, S72,  
 S101  
 Linscott, Andrea J., 882  
 Linzie, Bradley M., 398  
 Lisanti, Michael P., 93  
 Liu, Alvin Y., 13  
 Liu, Chen, 732  
 Liu, Zach, 49  
 LiVolsi, Virginia A., 175  
 Lo, Kwok-Wai, 168  
 Lohse, Peter, 78  
 Long, J. Alan, 938  
 Lopez-Corella, Eduardo, 845  
 Losi, Luisa, 706  
 Louro, Ana Paula, 392  
 Love, Seth, 699  
 Lu, Di, 236  
 Luppi, Gabriele, 706

## M

Maciejewski, Jaroslaw P.,  
 785

Macon, William R., 56  
 Magdelénat, Henri, 492  
 Magro, Cynthia M., 596  
 Maitra, Anirban, 685  
 Mallery, Shawn, 398  
 Mani, Anju, 86  
 Mansoor, Adnan, 246  
 Marberger, Michael, 107  
 Marin, Mary, 596  
 Marques, Marisa B., 938  
 Marsh, William L., Jr, 377  
 Marty, Pierre, 567  
 Matutes, Estella, 754  
 Mayr, Doris, 78  
 McEvoy, Rob, 312  
 Medeiros, L. Jeffrey, 236,  
 246, 760  
 Michal, Michal, 182  
 Mihm, Martin C., Jr, S101  
 Mikami, Tetuo, 413  
 Miller, Gerald C., 662  
 Ming, Michael E., 203  
 Molinié, Vincent, 492  
 Mooney, Robert A., S14  
 Moore, Sheila, 617  
 Moran, Cesar A., 182, 381  
 Moreira, Andre, 194  
 Morice, William G., 56  
 Morilla, Alison M., 754  
 Morilla, Ricardo M., 754  
 Morrow, Rhoda Ashley, 839  
 Moser, Markus, 691  
 Mougneau, Evelyne, 567  
 Mukai, Makio, 712  
 Murakami, MaryAnn M.,  
 114  
 Mysliborski, Judith, S101

## N

Nace, Eva K., 833  
 Nagel, Holger, 888  
 Nakanishi, Kuniaki, 712  
 Nazeer, Tipu, S85  
 Nazzarulo, Bianca L., 746  
 Ng, Valerie L., 18  
 Nguyen, Phuong L., 778,  
 S25  
 Niemann, Theodore H., 377  
 Nikiforov, Yuri E., 71  
 Nikiforova, Marina N., 71

## O

Oberle, Arnold, 882  
 Odish, Eva, 86  
 O'Hara, Carl J., 610  
 Okayasu, Isao, 413  
 O'Keefe, Christine L., 785  
 Olgac, Semra, 209  
 Onciu, Mihaela, 617  
 Orfao, Alberto, 917

Ormsby, Adrian H., 368  
Osipov, Vladimir, 322  
Otto, Herwart F., 418  
Owen, William E., 121  
Owusu-Ankomah, Kwasi A., 754

## P

Pambuccian, Stefan E., 101, 398  
Pang, Annie, 626  
Pascual, Teresa, 28  
Pasha, Theresa L., 175  
Pauls, Ryan J., 560  
Pearce, Lesly A., 114  
Pegoraro, Cinzia, 944  
Peiró, Gloria, 78  
Pengo, Vittorio, 944  
Penzel, Roland, 418  
Perkins, Sherrie L., 228, 322  
Perunovic, Branko, 699  
Petrosyan, Karen, 767  
Pham, Audrey S., 256  
Pham, Teresa Tram N., 575  
Piepkorn, Mike W., 203  
Piwowar-Manning, Estelle M., 268  
Pollock, Wendy, 312  
Popielek, Dorota A., 746  
Popnikolov, Nikolay K., 161  
Porchet, Nicole, 544  
Prayson, Richard A., 902  
Prieto, Victor G., 203  
Primo, Daniel, 917  
Prinz, Mechthild K., 746  
Procop, Gary W., 265  
Pui, Ching-Hon, 617  
Pusey, Charles, 312  
Pusztai, Lajos, S53  
Putt, Mary E., 175

## Q

Qian, Junqi, 368  
Quilty, Robert D., 699  
Quist, Heidi H., 114

## R

Rabkin, Michael S., 203  
Rafiq-Mohammed, Furheen, 754

Rahman, Ayman, 685  
Raimondi, Susana C., 617  
Ramos, Manuel, 917  
Rarok, Agnieszka A., 586  
Rassidakis, George Z., 236  
Rath, Werner, 691  
Reed, Jon A., 203  
Reyes, Adriana, 182  
Reyes, Eduardo, 28  
Riemersma, Sietske A., 327  
Rivasi, Francesco, 706  
Roberson, Janie, 392  
Roberts, William L., 121  
Röcken, Christoph, 536  
Roessner, Albert, 536  
Rolston, Kenneth V., 256  
Ross, Charles W., 335  
Ross, Jeffrey S., 822, S53, S72, S85, S101  
Ross, Merrill S., S72  
Ross, Patrick, Jr, S96  
Rossi, Giulio, 706  
Rouquette, Anne-Marie, 676  
Rubin, Mark A., 737  
Rudlowski, Christian, 691  
Rybicki, Lisa A., 902

## S

Sanders, Elizabeth L., 672  
Sandlund, John T., 617  
Sastre-Garau, Xavier, 492  
Savage, Judy, 312  
Schlette, Ellen, 760  
Schmitt, Jacky, 586  
Schneider-Stock, Regine, 536  
Schnitt, Stuart J., 485  
Schnitzer, Bertram, 335  
Scholten, Martin, 418  
Schori, Pamela, 554  
Schroder, Willibald, 691  
Schuurin, Ed, 327  
Seifert, Peter, 188  
Selim, M. Angelica, 203  
Setty, Suman, 554  
Shah, Rajal B., 737  
Shahsafaei, Aliakbar, 866  
Shea, Christopher R., 203  
Sheehan, Christine E., S85  
Sheehan, William W., 662  
Shieh, Wun-Ju, 845  
Shojania, Kaveh G., 18  
Sighinolfi, Pamela, 706

Simsir, Aylin, 194  
Singleton, Timothy P., 335  
Skinner, Martha, 610  
Slominski, Andrzej, S101  
Stahl, Steve, 785  
Stanley, Michael W., 309, 398  
Stec, James, S53, S72  
Stegeman, Coen A., 586  
Stelow, Edward B., 398  
Stowell, Christopher P., S46  
Sulzbacher, Irene, 107  
Sun, Xiaoping, 236  
Suster, Saul, 182, 381  
Sutter, Christian, 418  
Swan, Niall, 610  
Swanson, Paul E., 725  
Symmans, W. Fraser, S53

## T

Tabernero, Maria D., 917  
Tarrand, Jeffrey J., 256  
Theil, Karl S., 785  
Thioux, Martine, 492  
Torbensohn, Michael, 828  
Torres-Vélez, Fernando J., 833  
Träxler, Margit, 107  
Trevisin, Michelle, 312  
Tripp, Sheryl, 322  
Trotter, Martin J., 203  
True Lawrence D., 13  
Truong, Luan, 528  
Tse, Gary M.K., 168  
Tsongalis, Gregory J., S3  
Tun, Theingi, 34  
Tuohy, Marion J., 265  
Turenne, Christine Y., 560

## U

Ulbricht, Thomas M., 386

## V

Vacher-Lavenu, Marie-Cécile, 492  
Valli, Riccardo, 706  
van den Elzen, Peter, 866  
van der Geld, Ymke M., 586  
van der Leij, Marcel J., 586  
Veillon, Diana M., 882

Ventura, Karyna, 194  
Vicini, Frank, 500  
Vielh, Philippe, 492  
Vogt, Stefanie, 536  
Vonk, Marcel J., 327

## W

Waisman, Jerry, 194  
Waldman, W. James, 596  
Weinshenker, Brian G., 672  
Weir, Michele M., 405  
Weisberger, James, 49  
Weiss, Lawrence M., 64  
Welsh, Robert J., 720  
Weng, Andrew P., 866  
Werner, Carola, 888  
West, A. Brian, 746  
Wheaton, Sue, 322  
Wieczorek, Stacey, 114  
Wiik, Allan, 312  
Williams, Delisa, 265  
Williams, John D., 662  
Wilson, David B., 930  
Wilson, Deborah A., 265  
Wolfe, Joyce N., 560  
Won, Kimberly Y., 833  
Wong, Richard, 312  
Wood, Brent L., 854  
Wu, Alan H.B., 114  
Wu, David, S46  
Wusirika, Raghav, 596

## X

Xu, Yin, 778, S25

## Y

Yamashita, Kazuya, 413  
Yanagisawa, Nobuyuki, 413  
Yeo, Charles J., 685  
Yeung, Cecilia, 42

## Z

Zaki, Sherif R., 845  
Zakowski, Maureen F., 209  
Zehnder, James L., 42  
Zhu, Zhaoen, 71  
Ziol, Marianne, 492

# title index

**Index of Issues:** July, pp 1-144; August, pp 145-296; September, pp 297-472; October, pp 473-640; November, pp 641-808; December, pp 809-984. Page numbers beginning with S denote articles in the December Pathology Patterns Reviews.

## ANATOMIC PATHOLOGY

### Original Articles

Androgen Receptor Expression in Estrogen Receptor-Negative Breast Cancer: Immunohistochemical, Clinical, and Prognostic Associations

*S. Nicholas Agoff, Paul E. Swanson, Hannah Linden, Stephen E. Hawes, and Thomas J. Lawton, 725*

Are En Face Frozen Sections Accurate for Diagnosing Margin Status in Melanocytic Lesions?

*Victor G. Prieto, Zsolt B. Argenyi, Raymond L. Barnhill, Paul H. Duray, Rosalie Elenitsas, Lynn From, Joan Guitart, Marcelo G. Horenstein, Michael E. Ming, Mike W. Piepkorn, Michael S. Rabkin, Jon A. Reed, M. Angelica Selim, Martin J. Trotter, Marcella M. Johnson, and Christopher P. Shea, 203*

Aspiration Biopsy of Mammary Lesions With Abundant Extracellular Mucinous Material: Review of 43 Cases With Surgical Follow-up

*Karyna Ventura, Joan Cangiarella, Irene Lee, Andre Moreira, Jerry Waisman, and Aylin Simsir, 194*

Atypical Cells in Bronchoalveolar Lavage Specimens From Bone Marrow Transplant Recipients: A Potential Pitfall

*H. Evin Gulbahce, K. Scott Baker, Pragati Kumar, Klint Kjeldahl, and Stefan E. Pambuccian, 101*

Atypical Squamous Cells, Cannot Exclude High-Grade Squamous Intraepithelial Lesion: A Follow-up Study of Conventional and Liquid-Based Preparations in a High-Risk Population

*Ana Paula Louro, Janie Roberson, Isam Eltoum, and David C. Chheng, 392*

Benign Myoepithelial Tumors of the Breast Have Immunophenotypic Characteristics Similar to Metaplastic Matrix-Producing and Spindle Cell Carcinomas

*Nikolay K. Popnikolov, Alberto G. Ayala, Kerry Graves, and Zoran Gatalica, 161*

$\beta$ -Catenin Is Expressed Aberrantly in Tumors Expressing Shadow Cells: Pilomatricoma, Craniopharyngioma, and Calcifying Odontogenic Cyst

*Ashraf M. Hassanein, Steven M. Glanz, Harvey P. Kessler, Thomas A. Eskin, and Chen Liu, 732*

Clonal Analysis of Bilateral Mammary Carcinomas by Clinical Evaluation and Partial Allelotyping

*Gary M.K. Tse, Fred Y.L. Kung, Amy B.W. Chan, Bonita K.B. Law, Alexander R. Chang, and Kwok-Wai Lo, 168*

Comparison of Proliferation Indices in Glioblastoma Multiforme by Whole Tissue Section vs Tissue Microarray

*Andres G. Chiesa-Vottero, Lisa A. Rybicki, and Richard A. Prayson, 902*

Detection of Hepatitis C Virus RNA in Formalin-Fixed, Paraffin-Embedded Thin-Needle Liver Biopsy Specimens

*Stefanie Vogt, Regine Schneider-Stock, Sabine Klauck, Albert Roessner, and Christoph Röcken, 536*

Diagnostic Usefulness of Monoclonal Antibody P504S in the Workup of Atypical Prostatic Glandular Proliferations

*Lakshmi P. Kunju, Mark A. Rubin, Arul M. Chinnaiyan, and Rajal B. Shah, 737*

Distinguishing Atrophy and High-Grade Prostatic Intraepithelial Neoplasia From Prostatic Adenocarcinoma With and Without

Previous Adjuvant Hormone Therapy With the Aid of Cytokeratin 5/6

*Neil A. Abrahams, David G. Bostwick, Adrian H. Ormsby, Junqi Qian, and Jennifer A. Brainard, 368*

Does Mesoappendix Infiltration Predict a Worse Prognosis in Incidental Neuroendocrine Tumors of the Appendix? A

Clinicopathologic and Immunohistochemical Study of 15 Cases

*Giulio Rossi, Riccardo Valli, Federica Bertolini, Pamela Sighinolfi, Luisa Losi, Alberto Cavazza, Francesco Rivasi, and Gabriele Luppi, 706*

Efficiency of the Hybrid Capture 2 HPV DNA Test in Cervical Cancer Screening: A Study by the French Society of Clinical Cytology

*Patricia de Cremoux, Joël Coste, Xavier Sastre-Garau, Martine Thioux, Christelle Bouillac, Sylvain Labbé, Isabelle Cartier, Marianne Ziol, Anne Dosda, Catherine Le Galès, Vincent Molinié, Marie-Cécile Vacher-Lavenu, Béatrix Cochand-Priollet, Philippe Vielh, and Henri Magdelénat for the French Society of Clinical Cytology Study Group, 492*

Expression of Caveolin-1 and Caveolin-2 in Urothelial Carcinoma of the Urinary Bladder Correlates With Tumor Grade and Squamous Differentiation

*Andrew Fong, Ediberto Garcia, Lucas Gwynn, Michael P. Lisanti, Melissa J. Fazzari, and Maomi Li, 93*

Expression of Human Mucin Genes During Normal and Abnormal Renal Development

*Xavier Leroy, Louise Devisme, Marie-Pierre Buisine, Marie-Christine Copin, Sébastien Aubert, Bernard Gosselin, Jean-Pierre Aubert, and Nicole Porchet, 544*



- Expression of *mos* in Ependymal Gliomas  
*Athanasios Athanasiou, Branko Perunovic, Robert D. Quilty, Vassilis G. Gorgoulis, Christos Kittas, and Seth Love*, 699
- Expression of Platelet-Derived Growth Factor- $\alpha\alpha$  Receptor Is Associated With Tumor Progression in Clear Cell Renal Cell Carcinoma  
*Irene Sulzbacher, Peter Birner, Margit Tr  xler, Michael Marberger, and Andrea Haitel*, 107
- Expression of T/NK-Cell and Plasma Cell Antigens in Nonhematopoietic Epithelioid Neoplasms: An Immunohistochemical Study of 447 Cases  
*Peiguo G. Chu, Daniel A. Arber, and Lawrence M. Weiss*, 64
- Factors Associated With Ipsilateral Breast Failure and Distant Metastases in Patients With Invasive Breast Carcinoma Treated With Breast-Conserving Therapy: A Clinicopathologic Study of 607 Neoplasms From 583 Patients  
*Neal S. Goldstein, Larry Kestin, and Frank Vicini*, 500
- GLUT1 Messenger RNA and Protein Induction Relates to the Malignant Transformation of Cervical Cancer  
*Christian Rudlowski, Albert J. Becker, Willibald Schroder, Werner Rath, Reinhard B  ttner, and Markus Moser*, 691
- Her-2/*neu* Gene Amplification in Familial vs Sporadic Breast Cancer: Impact on the Behavior of the Disease  
*Ana B. Espinosa, Maria D. Tabernero, Maria C. Garc  a-Mac  as, Daniel Primo, Amalia G  mez Bernal, Juan J. Cruz, Manuel Ramos, Jaime Font de Mora, Alberto G  mez Alonso, and Alberto Orfao*, 917
- High-Risk Human Papillomaviruses May Have an Important Role in Non-Oral Habits-Associated Oral Squamous Cell Carcinomas in Taiwan  
*Julia Yu-Fong Chang, Ming-Chieh Lin, and Chun-Pin Chiang*, 909
- Immunohistochemical Staining of Cytologic Smears With MIB-1 Helps Distinguish Low-Grade From High-Grade Neuroendocrine Neoplasms  
*Oscar Lin, Semra Olgac, Ileana Green, Maureen F. Zakowski, and David S. Klimstra*, 209
- Insulin-like Growth Factor-I Receptor and PTEN Protein Expression in Endometrial Carcinoma: Correlation With *bax* and *bcl-2* Expression, Microsatellite Instability Status, and Outcome  
*Gloria Peir  , Peter Lohse, Doris Mayr, and Joachim Diebold*, 78
- Interinstitutional Pathology Consultations: A Reassessment  
*Michele M. Weir, E. Jan, and Terence J. Colgan*, 405
- Intraductal Papillary-Mucinous Neoplasm of the Pancreas: The Findings and Limitations of Cytologic Samples Obtained by Endoscopic Ultrasound-Guided Fine-Needle Aspiration  
*Edward B. Stelow, Michael W. Stanley, Ricardo H. Bardales, Shawn Mallery, Rebecca Lai, Bradley M. Linzie, and Stefan E. Pambuccian*, 398
- Intraoperative Consultation for Renal Lesions: Implications and Diagnostic Pitfalls in 324 Cases  
*Bhuvaneswari Krishnan, Juan Lechago, Gustavo Ayala, and Luan Truong*, 528
- Invasive Potential of "Noninvasive" Human Bladder Carcinoma: An Electron Microscopy Study  
*Peter J. Effert and Peter Seifert*, 188
- Loss of p27 Nuclear Expression in a Prognostically Favorable Subset of Well-Differentiated Pancreatic Endocrine Neoplasms  
*Ayman Rahman, Anirban Maitra, Raheela Ashfaq, Charles J. Yeo, John L. Cameron, and Donna E. Hansel*, 685
- Microsatellite Instability in Chronic Cholecystitis Is Indicative of an Early Stage in Gallbladder Carcinogenesis  
*Nobuyuki Yanagisawa, Tetuo Mikami, Kazuya Yamashita, and Isao Okayasu*, 413
- Minimum Formalin Fixation Time for Consistent Estrogen Receptor Immunohistochemical Staining of Invasive Breast Carcinoma  
*Neal S. Goldstein, Monica Ferkowicz, Eva Odish, Anju Mani, and Farnaz Hastah*, 86
- Molecular Profile and Clinical-Pathologic Features of the Follicular Variant of Papillary Thyroid Carcinoma: An Unusually High Prevalence of *ras* Mutations  
*Zhaowen Zhu, Manoj Gandhi, Marina N. Nikiforova, Andrew H. Fischer, and Yuri E. Nikiforov*, 71
- Multiplex DNA Short Tandem Repeat Analysis: A Useful Method for Determining the Provenance of Minute Fragments of Formalin-Fixed, Paraffin-Embedded Tissue  
*Dorota A. Popiolek, Mechthild K. Prinz, A. Brian West, Bianca L. Nazzaruolo, Sheila M. Estacio, and Zoran M. Budimlija*, 746
- Myometrial Inflammation in Human Delivery and Its Association With Labor and Infection  
*Leea T. Keski-Nisula, Marja-Leena Aalto, Pertti P. Kirkinen, Veli-Matti Kosma, and Seppo T. Heinonen*, 217
- Neuroendocrine Carcinomas (Carcinoid Tumor) of the Testis: A Clinicopathologic and Immunohistochemical Study of Ten Cases  
*Adriana Reyes, Cesar A. Moran, Saul Suster, Michal Michal, and Hugo Dominguez*, 182
- Pathologic Findings in Reduction Mammoplasty Specimens  
*Mona T. Ishag, Dmitry Y. Baschinsky, Irina V. Beliaeva, Theodore H. Niemann, and William L. Marsh, Jr*, 377
- Peroxisome Proliferator-Activated Receptor  $\gamma$  Expression in Follicular-Patterned Thyroid Lesions: Caveats for the Use of Immunohistochemical Studies  
*Karen S. Gustafson, Virginia A. LiVolsi, Emma E. Furth, Theresa L. Pasha, Mary E. Putt, and Zubair W. Baloch*, 175
- Predicting Tumor Volume in Radical Prostatectomy Specimens From Patients With Prostate Cancer  
*Lori E. Eichelberger, Michael O. Koch, Joanne K. Daggy, Thomas M. Ulbright, John N. Eble, and Liang Cheng*, 386
- Primary Mucoepidermoid Carcinoma of the Pleura: A Clinicopathologic Study of Two Cases  
*Cesar A. Moran, and Saul Suster*, 381
- Real-Time Reverse Transcription-Polymerase Chain Reaction Assay for GA733-2 mRNA in the Detection of Metastatic Carcinoma Cells in Serous Effusions  
*Holger Nagel, Carola Werner, and Bernhard Hemmerlein*, 888
- Somatic Mutations in Familial Adenomatous Polyposis: Nuclear Translocation of  $\beta$ -Catenin Requires More Than Biallelic APC Inactivation  
*Hendrik Bl  ker, Martin Scholten, Christian Sutter, Herwart F. Otto, and Roland Penzel*, 418
- Survivin Expression in Atypical Adenomatous Hyperplasia of the Lung

Kuniaki Nakanishi, Toshiaki Kawai, Fumiyuki Kumaki, Sadayuki Hiroi, Makio Mukai, and Eiji Ikeda, 712  
 Wedge Resection Margin Distances and Residual Adenocarcinoma in Lobectomy Specimens

Neal S. Goldstein, Monica Ferkowicz, Larry Kestin, Gary W. Chmielewski, and Robert J. Welsh, 720

# Review Article

Endoscopic Ultrasound-Guided Fine-Needle Aspiration: A Cytopathologist's Perspective

Nirag C. Jhala, Darshana N. Jhala, David C. Chhieng, Mohamad A. Eloubeidi, and Isam A. Eltoum, 351

# CLINICAL CHEMISTRY

## Original Articles

Comparison of Five Automated Serum and Whole Blood Folate Assays  
 William E. Owen and William L. Roberts, 121

Prognostic Value of the Ortho Vitros Cardiac Troponin I Assay in Patients With Symptoms of Myocardial Ischemia: Risk Stratification Using European Society of Cardiology/American College of Cardiology Recommended Cutoff Values

Fred S. Apple, MaryAnn M. Murakami, Heidi H. Quist, Lesly A. Pearce, Stacey Wiczorek, and Alan H.B. Wu, 114

## Review Article

Review of Abnormal Laboratory Test Results and Toxic Effects Due to Use of Herbal Medicines

Amitava Dasgupta, 127

# COAGULATION AND TRANSFUSION MEDICINE

## Original Articles

Capillary Whole Blood Testing by a New Portable Monitor: Comparison With Standard Determination of the International Normalized Ratio

Dunia de Miguel, Carmen Burgaleta, Eduardo Reyes, and Teresa Pascual, 28

Clinical Pathology Consultation Improves Coagulation Factor Utilization in Hospitalized Adults

Marisa B. Marques, George A. Fritsma, J. Alan Long, and Brian K. Adler, 938

A Comparison Between Six- and Four-Week Intervals in Surveillance of Oral Anticoagulant Treatment

Vittorio Pengo, Fabio Barbero, Alessandra Biasiolo, Cinzia Pegoraro, Umberto Cucchini, and Sabino Iliceto, 944

Comparison of Three Methods for Measuring Factor VIII Levels in Plasma

Wayne L. Chandler, Chris Ferrell, Joo Lee, Theingi Tun, and Hien Kha, 34

Evaluation of an Automated, Latex-Enhanced Turbidimetric D-Dimer Test (Advanced D-Dimer) and Usefulness in the Exclusion of Acute Thromboembolic Disease

David B. Wilson and Kathy M. Gard, 930

# EDITORIALS

A Challenge for the Diagnostic Immunohistopathologist: Adding the CD Phenotypes to Our Diagnostic Toolbox

Lawrence D. True and Alvin Y. Liu, 13

The Clinical Laboratory Data Warehouse: An Overlooked Diamond Mine

Raymond D. Aller, 817

Emerging Cancer Diagnostics: "On Slide" or "Off Slide": That Is the Question

Jeffrey S. Ross, 822

Endoscopic Ultrasound-Guided Fine-Needle Aspiration

Michael W. Stanley, 309

HPV Testing: Visible Expectations and Hidden Realities

Jerome M. Federschneider and Christopher P. Crum, 483

Intestinal Spirochetes: Organisms in Search of a Disease?

John D. Christie, 820

Optimizing Detection of Oligoclonal Bands in Cerebrospinal Fluid by Use of Isoelectric Focusing With IgG Immunoblotting

David F. Keren, 649

Risk Factors for Local Recurrence in Patients With Invasive Breast Cancer and Negative Surgical Margins of Excision: Where Are We and Where Are We Going?

Stuart J. Schnitt, 485

# HEMATOPATHOLOGY

## Case Reports

Inflammatory Pseudotumor of the Spleen Associated With a Clonal Epstein-Barr Virus Genome: Case Report and Review of the Literature

Jason T. Lewis, Robyn L. Gaffney, Mary B. Casey, Michael A. Farrell, William G. Morice, and William R. Macon, 56

Spurious Automated Platelet Count: Enumeration of Yeast Forms as Platelets by the Cell-DYN 4000

Shahnaila Latif, Diana M. Veillon, Donald Brown, Jenny Kaltenbach, Sherry Curry, Andrea J. Linscott, Arnold Oberle, and James D. Cotelingam, 882

T-Cell Large Granular Lymphocyte Leukemia of Donor Origin After Allogeneic Bone Marrow Transplantation

Wing Y. Au, Clarence C.K. Lam, Albert K.W. Lie, Annie Pang, and Yok L. Kwong, 626

## Original Articles

ALK-Positive Anaplastic Large Cell Lymphoma With Leukemic Peripheral Blood Involvement Is a Clinicopathologic Entity With an Unfavorable Prognosis: Report of Three Cases and Review of the Literature

Mihaela Onciu, Frederick G. Behm, Susana C. Raimondi, Sheila Moore, Emma L. Harwood, Ching-Hon Pui, and John T. Sandlund, 617

Analysis of CD10+ Hairy Cell Leukemia

Tammy M. Jasionowski, Leah Hartung, Jay H. Greenwood, Sherrie L. Perkins, and David W. Bahler, 228

The B-Cell Transcription Factors BSAP, Oct-2, and BOB.1 and the Pan-B-Cell Markers CD20, CD22, and CD79a Are Useful in the

- Differential Diagnosis of Classic Hodgkin Lymphoma  
Patrick Browne, Karen Petrosyan, Antonio Hernandez, and Joel A. Chan, 767
- Bone Marrow Core Biopsy Specimens in AL (Primary)  
Amyloidosis: A Morphologic and Immunohistochemical Study of 100 Cases  
Niall Swan, Martha Skinner, and Carl J. O'Hara, 610
- CD23 Expression in Mantle Cell Lymphoma: Clinicopathologic Features of 18 Cases  
Ellen Schlette, Kai Fu, and L. Jeffrey Medeiros, 760
- Comprehensive Validation of a Real-Time Quantitative bcr-abl Assay for Clinical Laboratory Use  
Carol D. Jones, Cecilia Yeung, and James L. Zehnder, 42
- Detection of Mature T-Cell Leukemias by Flow Cytometry Using Anti-T-Cell Receptor V $\beta$  Antibodies  
Rose C. Beck, Steve Stahl, Christine L. O'Keefe, Jaroslaw P. Maciejewski, Karl S. Theil, and Eric D. Hsi, 785
- Diagnostic Significance of CD20 and FMC7 Expression in B-Cell Disorders  
Julio Delgado, Estella Matutes, Alison M. Morilla, Ricardo M. Morilla, Kwasi A. Owusu-Ankomah, Furheen Rafiq-Mohammed, Ilaria del Giudice, and Daniel Catovsky, 754
- Diagnostic Significance of Detecting Dysgranulopoiesis in Chronic Myeloid Leukemia  
Yin Xu, Michelle M. Dolan, and Phuong L. Nguyen, 778
- Differential Expression of T-bet, a T-box Transcription Factor Required for Th1 T-Cell Development, in Peripheral T-Cell Lymphomas  
David M. Dorfman, Peter van den Elzen, Andrew P. Weng, Aliakbar Shahsafaei, and Laurie H. Glimcher, 866
- Diffuse Large B-Cell Lymphoma Occurring in Patients With Lymphoplasmacytic Lymphoma/Waldenström Macroglobulinemia: Clinicopathologic Features of 12 Cases  
Pei Lin, Adnan Mansoor, Carlos Bueso-Ramos, Suyang Hao, Raymond Lai, and L. Jeffrey Medeiros, 246
- Down-Regulation of Pan-T-Cell Antigens, Particularly CD7, in Acute Infectious Mononucleosis  
James Weisberger, Dennis Cornfield, Wojciech Gorczyca, and Zach Liu, 49
- Dysplasia and High Proliferation Rate Are Common in Acute Myeloid Leukemia With inv(16)(p13q22)  
Xiaoping Sun, L. Jeffrey Medeiros, Di Lu, George Z. Rassidakis, and Carlos Bueso-Ramos, 236
- Flow Cytometric Sorting of Paraffin-Embedded Tumor Tissues Considerably Improves Molecular Genetic Analysis  
Ekaterina S. Jordanova, Willem E. Corver, Marcel J. Vonk, Math P.G. Leers, Sietske A. Riemersma, Ed Schuurin, and Philip M. Kluin, 327
- Follicular Hyperplasia, Follicular Lysis, and Progressive Transformation of Germinal Centers: A Sequential Spectrum of Morphologic Evolution in Lymphoid Hyperplasia  
Chung-Che Chang, Vladimir Osipov, Sue Wheaton, Sheryl Tripp, and Sherrie L. Perkins, 322
- Four-Color Flow Cytometry Identifies Virtually All Cytogenetically Abnormal Bone Marrow Samples in the Workup of Non-CML Myeloproliferative Disorders  
Steven J. Kussick and Brent L. Wood, 854
- Histologic and Immunohistochemical Study of Bone Marrow Monocytic Nodules in 21 Cases With Myelodysplasia  
Yeu-Chin Chen, Jung-Mao Chou, Rhett P. Ketterling, Louis Letendre, and Chin-Yang Li, 874
- Histopathologic Features of Splenic Small B-Cell Lymphomas: A Study of 42 Cases With a Definitive Diagnosis by the World Health Organization Classification  
Rina Kansal, Charles W. Ross, Timothy P. Singleton, William G. Finn, and Bertram Schnitzer, 335
- Immature Granulocyte Measurement Using the Sysmex XE-2100: Relationship to Infection and Sepsis  
M. Ali Ansari-Lari, Thomas S. Kickler, and Michael J. Borowitz, 795

## IMMUNOPATHOLOGY

### Original Articles

- The Assessment of Anti-Endothelial Cell Antibodies in Scleroderma-Associated Pulmonary Fibrosis: A Study of Indirect Immunofluorescent and Western Blot Analysis in 49 Patients With Scleroderma  
Raghav Wusirika, Clodoveo Ferri, Mary Marin, Deborah A. Knight, W. James Waldman, Patrick Ross, Jr, and Cynthia M. Magro, 596
- Cerebrospinal Fluid Oligoclonal Bands in the Diagnosis of Multiple Sclerosis: Isoelectric Focusing With IgG Immunoblotting Compared With High-Resolution Agarose Gel Electrophoresis and Cerebrospinal Fluid IgG Index  
Alexandre S. Fortini, Elizabeth L. Sanders, Brian G. Weinshenker, and Jerry A. Katzmman, 672
- Evaluation of the New Multiplexed Immunoassay, FIDIS, for Simultaneous Quantitative Determination of Antinuclear Antibodies and Comparison With Conventional Methods  
Anne-Marie Rouquette, Chantal Desgruelles, and Pascale Laroche, 676
- Recombinant Protein to Analyze Autoantibodies to Proteinase 3 in Systemic Vasculitis  
Agnieszka A. Rarok, Minke G. Huitema, Marcel J. van der Leij, Ymke M. van der Geld, Heike Berthold, Jacky Schmitt, Coen A. Stegeman, Pieter C. Limburg, and Cees G.M. Kallenberg, 586
- Special Article**  
Addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies: Quality Control Guidelines, Comments, and Recommendations for Testing in Other Autoimmune Diseases  
Judy Savige, Wayne Dimech, Marvin Fritzler, James Goeken, E. Chris Hagen, J. Charles Jennette, Rob McEvoy, Charles Pusey, Wendy Pollock, Michelle Trevisin, Allan Wiik, and Richard Wong, for the International Group for Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies (ANCA), 312



## INFORMATICS

## Original Articles

Classifying Laboratory Incident Reports to Identify Problems That Jeopardize Patient Safety

Michael L. Astion, Kaveh G. Shojania, Tim R. Hamill, Sara Kim, and Valerie L. Ng, 18

The Data Warehouse as a Foundation for Population-Based

Reference Intervals

Brian J. Bock, C. Terrence Dolan, Gerald C. Miller, William F. Fitter, Brent D. Hartsell, A. Neil Crowson, William W. Sheehan, and John D. Williams, 662

## MICROBIOLOGY AND INFECTIOUS DISEASE

## Original Articles

Babesiosis: Two Atypical Cases From Minnesota and a Review

Suman Setty, Zena Khalil, Pamela Schori, Miguel Azar, and Patricia Ferrieri, 554

Bacteriologic Characterization of 36 Strains of *Roseomonas*

Species and Proposal of *Roseomonas mucosa* sp nov and

*Roseomonas gilardii* subsp *rosea* subsp nov

Xiang Y. Han, Audrey S. Pham, Jeffrey J. Tarrand, Kenneth V. Rolston, Leta O. Helsel, and Paul N. Levett, 256

Colonic Spirochetosis in Children and Adults

Ayman Koteish, Rajesh Kannangai, Susan C. Abraham, and Michael Torbenson, 828

Cross-Class Resistance to Non- $\beta$ -Lactam Antimicrobials in

Extended-Spectrum  $\beta$ -Lactamase-Producing *Klebsiella*

*pneumoniae*

Gary W. Procop, Marion J. Tuohy, Deborah A. Wilson, Delisa Williams, Emilia Hadziyannis, and Gerri S. Hall, 265

Development of an Immunohistochemical Assay for the Detection

of Babesiosis in Formalin-Fixed, Paraffin-Embedded Tissue

Samples

Fernando J. Torres-Vélez, Eva K. Nace, Kimberly Y. Won, Jeanine Bartlett, Mark Eberhard, and Jeannette Guarner, 833

Fatal Disseminated Adenovirus Infections in Immunocompromised Patients

Teresa Tram N. Pham, James L. Burchette, Jr, and Laura P. Hale, 575

A High Proportion of Novel Mycobacteria Species Identified by 16S rDNA Analysis Among Slowly Growing AccuProbe-Negative Strains in a Clinical Setting

Ryan J. Pauls, Christine Y. Turenne, Joyce N. Wolfe, and Amin Kabani, 560

Immunostaining of Visceral Leishmaniasis Caused by *Leishmania infantum* Using Monoclonal Antibody (19-11) to the *Leishmania*

Homologue of Receptors for Activated C-Kinase

Véronique Hofman, Pierre Brousset, Evelyne Mougneau, Pierre Marty, Laurence Lamant, Jean-Claude Antoine, Nicolas Glaichenhaus, and Paul Hofman, 567

Inaccuracy of Certain Commercial Enzyme Immunoassays in Diagnosing Genital Infections With Herpes Simplex Virus Types 1 or 2

Rhoda Ashley Morrow and David Friedrich, 839

Intestinal Intussusception Associated With Adenovirus Infection in Mexican Children

Jeannette Guarner, Beatriz de Leon-Bujorge, Eduardo Lopez-Corella, Tara Ferebee-Harris, Linda Gooding, C.T. Garnett, Wun-Ju Shieh, Jacqueline Dawson, Dean Erdman, and Sherif R. Zaki, 845

A Modified Ultrasensitive Assay to Detect Quantified HIV-1 RNA of Fewer Than 50 Copies per Milliliter

Estelle M. Piwowar-Manning, Terry A. Henderson, Lorraine Brisbin, and J. Brooks Jackson, 268

## PATHOLOGY PATTERNS REVIEWS

Cystic Fibrosis

Myra J. Lewis, Eugene H. Lewis III, Jean A. Amos, and Gregory J. Tsongalis, S3

DNA Ploidy and Cell Cycle Analysis in Breast Cancer

Jeffrey S. Ross, Gerald P. Linette, James Stec, Merrill S. Ross, Shahgul Anwar, and Ann Boguniewicz, S72

HER-2/neu Testing in Breast Cancer

Jeffrey S. Ross, Jonathan A. Fletcher, Kenneth J. Bloom, Gerald P. Linette, James Stec, Edward Clark, Mark Ayers, W. Fraser Symmans, Lajos Pusztai, and Gabriel N. Hortobagyi, S53

Malignant Melanoma 2003: Predisposition, Diagnosis, Prognosis, and Staging

J. Andrew Carlson, Andrzej Slominski, Gerald P. Linette, Judith Mysliborski, Jerome Hill, Martin C. Mihm, Jr, and Jeffrey S. Ross, S101

Myelodysplastic Syndromes

Phuong L. Nguyen, Yin Xu, and Aminah Jatoti, S25

New Developments in Prenatal Screening for Down Syndrome

Jeffrey P. Baliff and Robert A. Mooney, S14

Prion Diseases: Recent Developments Toward Diagnostic Tests

David Wu and Christopher P. Stowell, S46

Prognostic Factors in Prostate Cancer

Jeffrey S. Ross, Timothy A. Jennings, Tipu Nazeer, Christine E. Sheehan, Hugh A.G. Fisher, Ronald A. Kauffman, Shahgul Anwar, and Bhaskar V.S. Kallakury, S85

The Role of the Clinical Laboratory in the Diagnosis of Cushing Syndrome

Christine Garcia, Beverly M.K. Biller, and Anne Klibanski, S38

## SPECIAL ARTICLE

Curriculum Content and Evaluation of Resident Competency in Anatomic Pathology: A Proposal

Association of Directors of Anatomic and Surgical Pathology, 652

# subject index

**Index of Issues:** July, pp 1-144; August, pp 145-296; September, pp 297-472; October, pp 473-640; November, pp 641-808; December, pp 809-984. Page numbers beginning with S denote articles in the December Pathology Patterns Reviews.

## A

- Abstracts of Papers, 271, 425, 441, 973
- AccuProbe, high proportion of novel *Mycobacterium* species identified by, among slowly growing AccuProbe-negative strains in a clinical study, 560
- Accuracy
  - of en face frozen sections for diagnosing margin status in melanocytic lesions, 203
  - inaccuracy in certain commercial enzyme immunoassays in diagnosis of genital infections with herpes simplex viruses types 1 or 2, 839
  - spurious automated platelet count, enumeration of yeast forms as platelets by Cell-DYN 4000, 882
- Acknowledgments, 971
- Acute coronary syndrome, prognostic value of Ortho Vitros cardiac troponin I assay in patients with symptoms of myocardial ischemia, risk stratification using European Society of Cardiology/American Society of Cardiology recommended cutoff values, 114
- Adenocarcinoma
  - colloid, aspiration biopsy of mammary lesions with abundant extracellular mucinous material, review of 43 cases with surgical follow-up, 194
  - of lung, wedge resection margin distances and residual, in lobectomy specimens, 720
  - of prostate, distinguishing atrophy and high-grade prostatic intraepithelial neoplasia from, with and without previous adjuvant hormone therapy with the aid of cytokeratin 5/6, 368
  - survivin expression in atypical adenomatous hyperplasia of the lung, 712
- Adenomyoepithelioma, benign myoepithelial tumors of the breast have immunophenotypic characteristics similar to metaplastic matrix-producing and spindle cell carcinomas, 161
- Adenovirus
  - fatal disseminated infections in immunocompromised patients, 575
  - intestinal intussusception associated with infection with, in Mexican children, 845
- Adrenal gland, endoscopic ultrasound-guided fine-needle aspiration for detecting lesions of, a cytopathologist's perspective, 309, 351
- Adrenocorticotrophic hormone (ACTH), Cushing syndrome and, S38, S42
- Advanced D-Dimer, evaluation of, and usefulness in exclusion of acute thromboembolic disease, 930
- Adverse events, classifying incident reports to identify problems that jeopardize patient safety, 18
- Alanine aminotransferase, population-based reference interval for, 662
- Alkaline phosphatase, population-based reference interval for, 662
- Allelotyping, clonal analysis of bilateral mammary carcinomas, by clinical evaluation and partial, 168
- American Society of Cardiology, prognostic value of Ortho Vitros cardiac troponin I assay in patients with symptoms of myocardial ischemia, risk stratification using recommended cutoff values of European Society of Cardiology and, 114
- Amyloidosis, AL (primary), bone marrow core biopsy specimens in, a morphologic and immunohistochemical study of 100 cases, 610
- Anaplastic lymphoma kinase, ALK-positive anaplastic large cell lymphoma with leukemic peripheral blood involvement as clinicopathologic entity with unfavorable prognosis, report of three cases and review of the literature, 617
- Anatomic pathology, curriculum content and evaluation of resident competency in, a proposal, 652
- Androgen deprivation, distinguishing atrophy and high-grade prostatic intraepithelial neoplasia from prostatic adenocarcinoma with and without previous adjuvant hormone therapy with the aid of cytokeratin 5/6, 368
- Androgen receptor
  - expression in estrogen receptor-negative breast cancer, immunohistochemical, clinical, and prognostic associations, 725
  - as prostate cancer prognostic factor, S88
- Aneuploidy, S73, S111
- Aneusomy, S73
- Angiogenesis, tumor, in prostate cancer prognostics, S90
- Anticoagulation therapy, oral. *See* Oral anticoagulation therapy
- Anti-endothelial cell antibodies, to scleroderma-associated pulmonary fibrosis, assessment of, study of indirect immunofluorescent and Western blot analysis in 49 patients with scleroderma, 596
- Antimicrobial resistance, cross-class resistance to non- $\beta$ -lactam antimicrobials in extended-spectrum  $\beta$ -lactamase-producing *Klebsiella pneumoniae*, 265
- Antineutrophil cytoplasmic antibodies
  - addendum to the International Consensus Statement on Testing and Reporting of ANCA, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312

- recombinant protein to analyze autoantibodies to proteinase 3 in systemic vasculitis, 586
- Antinuclear antibodies, new multiplexed immunoassay FIDIS, for simultaneous: quantitative determination of, evaluation and comparison with conventional methods, 676
- Anti-T-cell receptor  $V_{\beta}$  antibodies, detection of mature T-cell leukemias by flow cytometry using, 785
- APC gene, and somatic mutations in familial adenomatous polyps, nuclear translocation of  $\beta$ -catenin requires more than biallelic inactivation of, 418
- Apoptosis
- dysplasia and high proliferation rate as common in acute myeloid leukemia with inv(16)(p13q22), 236
  - in prostate cancer prognostics, S93
  - survivin expression in atypical adenomatous hyperplasia of the lung, 712
- Appendix, neuroendocrine tumors of the, mesoappendix infiltration as predicting worse prognosis in incidental, a clinicopathologic and immunohistochemical study of 15 cases, 706
- ASCP Pathology Resident Award Finalists, 441
- ASCP President's Message, 138, 287, 424, 631, 800, 972
- Aspartate aminotransferase, population-based reference interval for, 662
- Atrophy, distinguishing from prostatic adenocarcinoma with and without previous adjuvant hormone therapy with the aid of cytokeratin 5/6, 368
- Atypical cells, in bronchoalveolar specimens from bone marrow transplant recipients, as potential pitfall, 101
- Atypical squamous cells of undetermined significance (ASCUS), cannot exclude high-grade squamous intraepithelial lesion, follow-up study of conventional and liquid-based preparations in a high-risk population, 392
- Autoantibodies, to proteinase 3, recombinant protein to analyze, in systemic vasculitis, 586
- Autoimmune diseases
- addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other, 312
  - new multiplexed immunoassay FIDIS, for simultaneous quantitative determination of antinuclear antibodies, evaluation and comparison with conventional methods, 676
- Automation
- five automated serum and whole blood folate assays, comparison of, 121
  - immature granulocyte measurement using Sysmex XE-2100, relation to infection and sepsis, 795
  - latex-enhanced turbidimetric D-dimer test (Advanced D-Dimer), evaluation of, and usefulness in exclusion of acute thromboembolic disease, 930
  - spurious automated platelet count, enumeration of yeast forms as platelets by Cell-DYN 4000, 882
- B**
- Babesia*, in babesiosis
- immunohistochemical assay development for detection of, in formalin-fixed, paraffin-embedded tissue samples, 833
  - two atypical cases from Minnesota and a review, 554
- Babesiosis
- immunohistochemical assay development for detection of, in formalin-fixed, paraffin-embedded tissue samples, 833
  - two atypical cases from Minnesota and a review, 554
- Bacteria
- bacteriologic characterization of 36 strains of *Roseomonas*, and proposal of *Roseomonas mucosa* sp nov and *Roseomonas gilardii* subsp *rosea* subsp nov, 256
  - cross-class resistance to non- $\beta$ -lactam antimicrobials in extended-spectrum  $\beta$ -lactamase-producing *Klebsiella pneumoniae*, 265
  - high proportion of novel *Mycobacterium* species identified by 16S rDNA analysis among slowly growing AccuProbe-negative strains in a clinical study, 560
- Band counts, immature granulocyte measurement using Sysmex XE-2100, relation to infection and sepsis, 795
- bax, insulin-like growth factor-I receptor and PTEN protein expression in endometrial carcinoma, correlation with expression of bcl-2 and, microsatellite instability status, and outcome, 78
- B-cell neoplasms
- B-cell transcription factors BSAP, Oct-2, and BOB.1 and the pan-B-cell markers CD20, CD22, and CD79a as useful in differential diagnosis of classic Hodgkin lymphoma, 767
  - CD20 and FMC7 expression in, diagnostic significance of, 754
  - diffuse large B-cell lymphoma in patients with lymphoplasmacytic lymphoma/Waldenström macroglobulinemia, clinicopathologic features of 12 cases, 246
  - lymphoma, flow cytometric sorting of paraffin-embedded tumor tissues considerably improves molecular genetic analysis, 327
  - small B-cell lymphoma of the spleen, histopathologic features of, a study of 42 cases with definitive diagnosis by the World Health Organization classification, 335
- B-cell Oct-binding protein 1 (BOB.1), in differential diagnosis of classic Hodgkin lymphoma, usefulness of, 767
- B-cell-specific activator protein (BSAP), in differential diagnosis of classic Hodgkin lymphoma, usefulness of, 767
- bcl-2
- insulin-like growth factor-I receptor and PTEN protein expression in endometrial carcinoma, correlation with expression of bax and, microsatellite instability status, and outcome, 78
  - in prostate cancer prognostics, S93
- bcr-abl* fusion transcripts, comprehensive validation of real-time quantitative assay for clinical use, 42
- BerEP-4, real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
- Bile ducts, endoscopic ultrasound-guided fine-needle aspiration for detecting lesions of, a cytopathologist's perspective, 309, 351
- Bilirubin, total, population-based reference interval for, 662
- Biomarkers
- for malignant melanoma, S105
  - for prostate cancer, S85
- Biopsy. *See also* Needle biopsy
- bone marrow core biopsy specimens in AL (primary) amyloidosis, a morphologic and immunohistochemical study of 100 cases, 610
- Bladder, carcinoma of
- invasive potential of noninvasive, an electron microscopy study, 188

- urothelial, expression of caveolin-1 and caveolin-2 in, correlates with tumor grade and squamous differentiation, 93
- Blast crisis, dysgranulopoiesis in chronic myeloid leukemia, diagnostic significance of detecting, 778
- Blood cell counters
- immature granulocyte measurement using Sysmex XE-2100, relation to infection and sepsis, 795
  - spurious automated platelet count, enumeration of yeast forms as platelets by Cell-DYN 4000, 882
- Bone. *See also* Bone marrow
- cystic fibrosis and, S8
- Bone marrow. *See also* Bone marrow transplantation
- core biopsy specimens in AL (primary) amyloidosis, a morphologic and immunohistochemical study of 100 cases, 610
  - dysplasia and high proliferation rate as common in acute myeloid leukemia with inv(16)(p13q22), 236
  - four-color flow cytometry identifies virtually all cytogenetically abnormal samples in workup of non-CML myeloproliferative disorders, 854
  - monocytic nodules, histologic and immunohistochemical study of, in 21 cases with myelodysplasia, 874
- Bone marrow transplantation
- allogeneic, T-cell large granular lymphocyte leukemia of donor origin after, 626
  - atypical cells in bronchoalveolar specimens in recipients of as potential pitfall, 101
- Book Reviews, 139, 288, 430, 632, 801
- Bovine spongiform encephalopathies, recent developments toward diagnostic tests for, S46
- Brachyspira aalborgi*, in colonic spirochetosis, 820, 828
- Brachyspira pilosicoli*, in colonic spirochetosis, 820, 828
- Brain, mos expression in ependymal gliomas, 699
- Breast cancer
- androgen receptor expression in estrogen receptor-negative, immunohistochemical, clinical, and prognostic associations, 725
  - aspiration biopsy of mammary lesions with abundant extracellular mucinous material, review of 43 cases with surgical follow-up, 194
  - carcinoma
    - benign myoepithelial tumors of the breast have immunophenotypic characteristics similar to metaplastic matrix-producing and spindle cell carcinomas, 161
    - real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
  - carcinoma, bilateral, clonal analysis of, by clinical evaluation and partial allelotyping, 168
  - carcinoma, invasive, minimum formalin fixation time for consistent estrogen receptor immunohistochemical staining of, 86
  - DNA ploidy and cell cycle analysis in, S72
  - factors associated with ipsilateral breast failure and distant metastases in patients with invasive carcinoma treated with breast-conserving therapy, clinicopathologic study of 607 neoplasms from 583 patients, 485, 500
  - familial, Her-2/*neu* gene amplification in sporadic vs, impact on behavior of the disease, 917
  - HER-2/*neu* testing in, S53
  - pathologic findings in specimens from reduction mammoplasty, 377
- Breast-conserving therapy, factors associated with ipsilateral breast failure and distant metastases in patients with invasive breast carcinoma treated with, clinicopathologic study of 607 neoplasms from 583 patients, 485, 500
- Bronchoalveolar specimens, from bone marrow transplant recipients, atypical cells in, as potential pitfall, 101

## C

- E-Cadherin, in prostate cancer prognostics, S91
- Candida glabrata*, spurious automated platelet count, enumeration of yeast forms as platelets by Cell-DYN 4000, 882
- Capillary whole blood testing, by new portable analyzer, comparison with standard determination of international normalized ratio, 28
- Carcinogenesis
- expression of caveolin-1 and caveolin-2 in urothelial carcinoma of urinary bladder correlates with tumor grade and squamous differentiation, 93
  - microsatellite instability in chronic cholecystitis, as indicative of an early stage of gallbladder, 413
- Carcinoid tumor
- carcinomas of the testis, clinicopathologic and immunohistochemical study of ten cases, 182
  - mesoappendix infiltration as predicting worse prognosis in incidental neuroendocrine tumors of appendix, a clinicopathologic and immunohistochemical study of 15 cases, 706
- Carcinoma
- of breast
    - aspiration biopsy of mammary lesions with abundant extracellular mucinous material, review of 43 cases with surgical follow-up, 194
    - benign myoepithelial tumors of the breast have immunophenotypic characteristics similar to metaplastic matrix-producing and spindle cell, 161
    - pathologic findings in specimens from reduction mammoplasty, 377
    - real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
  - of breast, bilateral, clonal analysis of, by clinical evaluation and partial allelotyping, 168
  - of breast, invasive
    - factors associated with ipsilateral breast failure and distant metastases in patients with, treated with breast-conserving therapy, clinicopathologic study of 607 neoplasms from 583 patients, 485, 500
    - minimum formalin fixation time for consistent estrogen receptor immunohistochemical staining of, 86
  - bronchioalveolar, survivin expression in atypical adenomatous hyperplasia of the lung, 712
  - endometrial, insulin-like growth factor-I receptor and PTEN protein expression in, correlation with bax and bcl-2 expression, microsatellite instability status, and outcome, 78
  - expression of T/NK-cell and plasma cell antigens in non-hematopoietic epithelioid neoplasms, an immunohistochemical study of 447 cases, 64
  - of gallbladder, microsatellite instability in chronic cholecystitis as indicative of an early stage of carcinogenesis, 413



- of kidney, platelet-derived growth factor- $\alpha\alpha$  receptor expression is associated with tumor progression in clear cell renal cell, 107
- oral, high-risk human papillomaviruses' possible role in non-oral habits-associated oral squamous cell carcinomas in Taiwan, 909
- of pancreas, papillary-mucinous, endoscopic ultrasound-guided fine-needle aspiration for detecting, findings and limitations of cytologic samples obtained by, 398
- papillary thyroid, follicular variant of, molecular profile and clinical-pathologic features of, an unusually high prevalence of *ras* mutations, 71
- of the pleura, primary mucoepidermoid, clinicopathologic study of two cases, 381
- of prostate, predicting tumor volume in radical prostatectomy specimens from patients with, 386
- of the testis, neuroendocrine, clinicopathologic and immunohistochemical study of ten cases, 182
- of thyroid, peroxisome proliferator-activated receptor  $\gamma$  expression in follicular-patterned thyroid lesions, caveats for the use of immunohistochemical studies, 175
- of urinary bladder  
   invasive potential of noninvasive, an electron microscopy study, 188  
   urothelial, expression of caveolin-1 and caveolin-2 in, correlates with tumor grade and squamous differentiation, 93
- Cardiac troponin I, prognostic value of Ortho Vitros assay in patients with symptoms of myocardial ischemia, risk stratification using European Society of Cardiology/American Society of Cardiology recommended cutoff values, 114
- $\beta$ -Catenin  
   as expressed aberrantly in tumors expressing shadow cells, pilomatricoma, craniopharyngioma, and calcifying odontogenic cyst, 732  
   in prostate cancer prognostics, S91  
   and somatic mutations in familial adenomatous polyps, nuclear translocation of, requires more than biallelic *APC* inactivation, 418
- Cathepsin D, in prostate cancer prognostics, S91
- Caveolin-1, expression of caveolin-2 and, in urothelial carcinoma of urinary bladder, correlates with tumor grade and squamous differentiation, 93
- Caveolin-2, expression of caveolin-1 and, in urothelial carcinoma of urinary bladder, correlates with tumor grade and squamous differentiation, 93
- CD5, expression of T/NK-cell and plasma cell antigens in non-hematopoietic epithelioid neoplasms, an immunohistochemical study of 447 cases, 64
- CD7  
   down-regulation of, in acute infectious mononucleosis, 49  
   expression of T/NK-cell and plasma cell antigens in non-hematopoietic epithelioid neoplasms, an immunohistochemical study of 447 cases, 64
- CD10, expression in hairy cell leukemia, 228
- CD13, four-color flow cytometry identifies virtually all cytogenetically abnormal bone marrow samples in workup of non-CML myeloproliferative disorders, 854
- CD20  
   in differential diagnosis of classic Hodgkin lymphoma, usefulness of, 767  
   and FMC7 expression in B-cell disorders, diagnostic significance of, 754
- CD22, in differential diagnosis of classic Hodgkin lymphoma, usefulness of, 767
- CD23, expression in mantle cell lymphoma, clinicopathologic features of 18 cases, 760
- CD33, four-color flow cytometry identifies virtually all cytogenetically abnormal bone marrow samples in workup of non-CML myeloproliferative disorders, 854
- CD44, in prostate cancer prognostics, S91
- CD56, expression of T/NK-cell and plasma cell antigens in non-hematopoietic epithelioid neoplasms, an immunohistochemical study of 447 cases, 64
- CD79a, in differential diagnosis of classic Hodgkin lymphoma, usefulness of, 767
- CD138, expression of T/NK-cell and plasma cell antigens in non-hematopoietic epithelioid neoplasms, an immunohistochemical study of 447 cases, 64
- CD antigens, adding CD phenotypes to diagnostic immunohistopathologists' toolbox, 13
- Cell adhesion molecules, in prostate cancer prognostics, S91
- Cell cycle, in breast cancer, S72
- Cell-cycle markers, for malignant melanoma, S109
- Cell-cycle regulators  
   as prognostic factors in breast cancer, S80  
   in prostate cancer, S89
- Cell-DYN 4000, spurious automated platelet count, enumeration of yeast forms as platelets by, 882
- Cell proliferation  
   in breast cancer, S72  
   proliferation indices in glioblastoma multiforme by whole tissue section vs tissue microarray, comparison of, 902  
   in prostate cancer, S88
- c-erb-b2* gene. See *HER-2/neu* gene
- Cerebrospinal fluid, oligoclonal bands in, in diagnosis of multiple sclerosis, isoelectric focusing with IgG immunoblotting compared with high-resolution agarose gel electrophoresis and cerebrospinal fluid IgG index, 649, 672
- Cerebrospinal fluid IgG index, in diagnosis of multiple sclerosis, 649, 672
- Cervical cancer  
   *GLUT1* messenger RNA and protein induction relates to malignant transformation of, 691  
   screening for, efficiency of Hybrid Capture 2 human papillomavirus DNA assay, a study by the French Society for Clinical Pathology, 483, 492
- Cervicovaginal smears, atypical squamous cells of undetermined significance cannot exclude high-grade squamous intraepithelial lesion, follow-up study of conventional and liquid-based preparations in a high-risk population, 392
- Cesarean section, myometrial inflammation in human delivery and its association with labor and infection, 217
- Check Sample Abstracts, 425, 973
- Childbirth, myometrial inflammation in human delivery and its association with labor and infection, 217
- Cholecystitis, chronic, microsatellite instability in, as indicative of an early stage of gallbladder carcinogenesis, 413
- Chromogenic activity assay, for measuring factor VIII levels in plasma, 34
- Chromogenic in situ hybridization, for *HER-2/neu* testing, S59
- Chromosomal aberrations, and malignant melanoma, S111
- Chromosome 17p, dysgranulopoiesis in chronic myeloid leukemia, diagnostic significance of detecting, 778



- Churg-Strauss syndrome, addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312
- Clear cells, platelet-derived growth factor- $\alpha\alpha$  receptor expression is associated with tumor progression in clear cell renal cell carcinoma, 107
- Clonality, clonal analysis of bilateral mammary carcinomas, by clinical evaluation and partial allelotyping, 168
- Clot-based assay, for measuring factor VIII levels in plasma, 34
- c-mos* proto-oncogene, *mos* expression in ependymal gliomas, 699
- Coagulation. *See also* Coagulation factors; Oral anticoagulation therapy
- automated, latex-enhanced turbidimetric D-dimer test (Advanced D-Dimer), evaluation of, and usefulness in exclusion of acute thromboembolic disease, 930
  - capillary whole blood testing by new portable analyzer, comparison with standard determination of international normalized ratio, 28
- Coagulation factors
- comparison of three methods for measuring factor VIII levels in plasma, 34
  - pathology consultation improving utilization in hospitalized adults, 938
- Colon, spirochetosis of, in children and adults, 820, 828
- Comparative genomic analysis, for malignant melanoma diagnosis, S108, S111
- Consultations, pathology. *See* Pathology consultations
- Core biopsy, bone marrow specimens in AL (primary) amyloidosis, a morphologic and immunohistochemical study of 100 cases, 610
- Correspondence and Correction, 432, 633, 803, 978
- Corticotropin-releasing hormone, Cushing syndrome and, S39
- Corticotropin-releasing hormone stimulation test, in Cushing syndrome differential diagnosis, S43
- Cortisol, hypercortisolism, S40
- Cost containment, clinical pathology consultation improving coagulation factor utilization in hospitalized adults, 938
- Craniopharyngioma,  $\beta$ -catenin as expressed aberrantly in tumors expressing shadow cells, 732
- Creatine kinase, immunostaining of visceral leishmaniasis caused by *Leishmania infantum*, using monoclonal antibody (19-11) to the *Leishmania* homologue of receptors for activated, 567
- Creutzfeldt-Jakob disease, recent developments toward diagnostic tests for, S46
- Cross-class resistance, in extended-spectrum  $\beta$ -lactamase-producing *Klebsiella pneumoniae*, to non- $\beta$ -lactam antimicrobials, 265
- Cushing syndrome, clinical laboratory's role in diagnosis of, S38
- Cyclic amplification, of prion particles, S50
- Cyclin D, as prognostic factor in breast cancer, S80
- Cyclin D1, in prostate cancer prognostics, S89
- Cyclin-dependent kinase receptors, in prostate cancer, S89
- Cyclin E, as prognostic factor in breast cancer, S80
- Cystic fibrosis, S3
- Cystic fibrosis transmembrane conductance regulator (*CFTR*) gene, S3
- Cystic tumors, intraoperative consultation for renal lesions, implications and diagnostic pitfalls in 324 cases, 528
- Cysts, renal, human mucin gene expression during normal and abnormal renal development, 544
- Cytogenetics
- four-color flow cytometry identifies virtually all abnormal bone marrow samples in workup of non-CML myeloproliferative disorders, 854
  - in prostate cancer prognostics, S89
- Cytokeratins, distinguishing atrophy and high-grade prostatic intraepithelial neoplasia from prostatic adenocarcinoma with and without previous adjuvant hormone therapy with the aid of cytokeratin 5/6, 368
- Cytokines, in prostate cancer prognostics, S90
- Cytology
- liquid-based, atypical squamous cells of undetermined significance cannot exclude high-grade squamous intraepithelial lesion, follow-up study of conventional and liquid-based preparations in a high-risk population, 392
  - MIB-1 immunohistochemical staining of smears for distinguishing low-grade from high-grade neuroendocrine neoplasms, 209
- Cytopathology
- endoscopic ultrasound-guided fine-needle aspiration for detecting intraductal papillary-mucinous neoplasm of the pancreas, findings and limitations of cytologic samples obtained by, 398
  - endoscopic ultrasound-guided fine-needle aspiration in, 309, 351
- Cytopenia, myelodysplastic syndromes and, S25
- D**
- Data warehouses
- as foundation for population-based reference intervals, 662
  - as overlooked resource, 817
- D-dimer, automated, latex-enhanced turbidimetric D-dimer test (Advanced D-Dimer), evaluation of, and usefulness in exclusion of acute thromboembolic disease, 930
- Decidua, inflammation of, in human delivery, and its association with labor and infection, 217
- DNA
- efficiency of Hybrid Capture 2 human papillomavirus DNA assay in screening for cervical cancer, a study by the French Society for Clinical Pathology, 483, 492
  - multiplex DNA short tandem repeat analysis, a useful method for determining provenance of minute fragments of formalin-fixed, paraffin-embedded tissue, 746
- DNA ploidy
- in breast cancer, S72
  - in prostate cancer prognostics, S89
- Down syndrome, new developments in prenatal screening for, S14
- Drug interference, abnormal laboratory test results and toxic effects due to use of herbal medicines, review of, 127
- Drug-resistance genes, in prostate cancer prognostics, S92
- Dysgranulopoiesis, in chronic myeloid leukemia, diagnostic significance of detecting, 778
- Dysplasia
- cervical, atypical squamous cells of undetermined significance cannot exclude high-grade squamous intraepithelial lesion, follow-up study of conventional and liquid-based preparations in a high-risk population, 392
  - as common in acute myeloid leukemia with inv(16)(p13q22), 236

## E

- Effusions, serous, real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in, 822, 888
- Electron microscopy, bladder carcinoma, invasive potential of non-invasive, a study by, 188
- Embolism, pulmonary, automated, latex-enhanced turbidimetric D-dimer test (Advanced D-Dimer), evaluation of, and usefulness in exclusion of acute thromboembolic disease, 930
- Endoscopy, endoscopic ultrasound-guided fine-needle aspiration a cytopathologist's perspective, 309, 351  
for intraductal papillary-mucinous neoplasm of the pancreas, findings and limitations of cytologic samples obtained by, 398
- Endothelial growth factor, vascular, as malignant melanoma biomarker, S111
- En face frozen sections, accuracy for diagnosing margin status in melanocytic lesions, 203
- Enzyme immunoassays. *See also* Enzyme-linked immunosorbent assay (ELISA)  
in diagnosis of genital infections with herpes simplex viruses types 1 or 2, inaccuracy in certain commercial, 839
- Enzyme-linked immunosorbent assay (ELISA)  
in diagnosis of genital infections with herpes simplex viruses types 1 or 2, inaccuracy in certain commercial, 839  
new multiplexed immunoassay FIDIS, for simultaneous quantitative determination of antinuclear antibodies, comparison with, 676  
recombinant protein to analyze autoantibodies to proteinase 3 in systemic vasculitis, 586  
tumor, for HER-2/*neu* testing, S59
- Eosinophilia, dysplasia and high proliferation rate as common in acute myeloid leukemia with inv(16)(p13q22), 236
- Ependymoma, *mos* expression in ependymal gliomas, 699
- Epidermal growth factor, in prostate cancer prognostics, S90
- Epidermal growth factor receptor, in prostate cancer prognostics, S90
- Epithelial glycoprotein-2, in real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
- Epithelioid neoplasms, nonhematopoietic, expression of T/NK-cell and plasma cell antigens in, an immunohistochemical study of 447 cases, 64
- Epstein-Barr virus (EBV), inflammatory pseudotumor of the spleen, associated with a clonal genome of, case report and review of the literature, 56
- Erythroid differentiation-related factor, as marker for prion disease, S50
- Estrilol, unconjugated, in prenatal screening for Down syndrome, S14
- Estrogen receptor  
androgen receptor expression in estrogen receptor-negative breast cancer, 725  
HER-2/*neu* status and prediction of response to, S63  
minimum formalin fixation time for consistent immunohistochemical staining of invasive breast carcinoma, 86
- European Society of Cardiology, prognostic value of Ortho Vitros cardiac troponin I assay in patients with symptoms of myocardial ischemia, risk stratification using recommended cutoff values of American Society of Cardiology and, 114

## F

- Factor VIII, comparison of three methods for measuring plasma levels of, 34
- FASTER trial, S20
- Fetal development, human mucin gene expression during normal and abnormal renal development, 544
- $\alpha$ -Fetoprotein, in prenatal screening for Down syndrome, S14
- Fibroadenoma, myxoid, aspiration biopsy of mammary lesions with abundant extracellular mucinous material, review of 43 cases with surgical follow-up, 194
- Fibrosis, pulmonary, assessment of anti-endothelial cell antibodies to scleroderma-associated, study of indirect immunofluorescent and Western blot analysis in 49 patients with scleroderma, 596
- FIDIS Connective kit, for simultaneous quantitative determination of antinuclear antibodies, evaluation and comparison with conventional methods, 676
- Fine-needle aspiration biopsy  
endoscopic ultrasound-guided  
a cytopathologist's perspective, 309, 351  
for intraductal papillary-mucinous neoplasm of the pancreas, findings and limitations of cytologic samples obtained by, 398  
of mammary lesions with abundant extracellular mucinous material, review of 43 cases with surgical follow-up, 194
- Flow cytometry  
detection of mature T-cell leukemias by, using anti-T-cell receptor  $V_{\beta}$  antibodies, 785  
for DNA content measurement, S73  
immunophenotyping by  
CD10 expression in hairy cell leukemia, 228  
down-regulation of pan-T-cell antigens, particularly CD7, in acute infectious mononucleosis, 49  
four-color flow cytometry identifies virtually all cytogenetically abnormal bone marrow samples in workup of non-CML myeloproliferative disorders, 854  
for myelodysplastic syndrome diagnosis, S34  
sorting of paraffin-embedded tumor tissues considerably improves molecular genetic analysis, 327
- Fluorescence in situ hybridization (FISH)  
flow cytometric sorting of paraffin-embedded tumor tissues considerably improves molecular genetic analysis, 327  
Her-2/*neu* gene amplification in familial vs sporadic breast cancer, impact on behavior of the disease, 917  
HER-2/*neu* testing in breast cancer, S53  
for myelodysplastic syndrome diagnosis, S34
- FMC7, and CD20 expression in B-cell disorders, diagnostic significance of, 754
- Folate, five automated serum and whole blood assays for, comparison of, 121
- Follicular lesions  
follicular hyperplasia, follicular lysis, and progressive transformation of germinal centers, a sequential spectrum of morphologic evolution in lymphoid hyperplasia, 322  
follicular variant of papillary thyroid carcinoma, molecular profile and clinical-pathologic features of, an unusually high prevalence of *ras* mutations, 71  
peroxisome proliferator-activated receptor  $\gamma$  expression in follicular-patterned thyroid lesions, caveats for the use of immunohistochemical studies, 175

# Formalin

- hepatitis C virus RNA detection in paraffin-embedded thin-needle liver biopsy specimens, 536
- immunohistochemical assay development for detection of babesiosis in formalin-fixed, paraffin-embedded tissue samples, 833
- minimum fixation time for consistent estrogen receptor immunohistochemical staining of invasive breast carcinoma, 86
- multiplex DNA short tandem repeat analysis, a useful method for determining provenance of minute fragments of formalin-fixed, paraffin-embedded tissue, 746

# Frozen sections

- en face, accuracy for diagnosing margin status in melanocytic lesions, 203
- intraoperative consultation for renal lesions, implications and diagnostic pitfalls in 324 cases, 528

# G

- GA733-2, real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888

# Gallbladder

- endoscopic ultrasound-guided fine-needle aspiration for detecting lesions of, a cytopathologist's perspective, 309, 351
- microsatellite instability in chronic cholecystitis, as indicative of an early stage of carcinogenesis, 413

# Gastrointestinal tract

- colonic spirochetosis, in children and adults, 820, 828
- cystic fibrosis, S7
- endoscopic ultrasound-guided fine-needle aspiration for detecting lesions of, a cytopathologist's perspective, 309, 351
- intestinal intussusception associated with adenovirus infection in Mexican children, 845
- neuroendocrine neoplasms of
  - mesoappendix infiltration as predicting worse prognosis in incidental tumors of the appendix, a clinicopathologic and immunohistochemical study of 15 cases, 706
  - MIB-1 immunohistochemical staining of cytology smears for distinguishing low-grade from high-grade, 209

- Gel electrophoresis, high-resolution agarose, in diagnosis of multiple sclerosis, 649, 672

- Genetic testing, for malignant melanoma, S104

- Genital herpes, inaccuracy in commercial enzyme immunoassays in diagnosis of herpes simplex viruses types 1 or 2 infections, 839

- Germinal centers, follicular hyperplasia, follicular lysis, and progressive transformation of, a sequential spectrum of morphologic evolution in lymphoid hyperplasia, 322

- Glioblastoma multiforme, proliferation indices in, by whole tissue section vs tissue microarray, comparison of, 902

- Gliomas, *mos* expression in ependymal, 699

- Glucocorticoids, Cushing syndrome and, S38

- Glucose transporter proteins, GLUT1 messenger RNA and protein induction relates to malignant transformation of cervical cancer, 691

- GLUT1, expression relates to malignant transformation of cervical cancer, 691

- Glutathione-S-transferase- $\pi$ , in prostate cancer prognostics, S93

- Granulocytes, immature, measurement using Sysmex XE-2100, relation to infection and sepsis, 795

- Granulomatosis, Wegener, addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312

# Growth factors

- in prostate cancer prognostics, S90
- vascular endothelial growth factor as malignant melanoma biomarker, S111

# H

## Hematology analyzers

- immature granulocyte measurement using Sysmex XE-2100, relation to infection and sepsis, 795
- spurious automated platelet count, enumeration of yeast forms as platelets by Cell-DYN 4000, 882

- Hematopoietic stem cells, and myelodysplastic syndromes, S25

- Hemolysates, five automated serum and whole blood folate assays, comparison of, 121

- Hemophilia, clinical pathology consultation improving coagulation factor utilization in hospitalized adults, 938

- Hemorrhage, fatal disseminated adenovirus infections in immunocompromised patients, 575

- Hepatitis C virus, RNA detection in formalin-fixed paraffin-embedded thin-needle liver biopsy specimens, 536

- Hepsin-like protease, in prostate cancer prognostics, S93

## HER-2/*neu* gene

- amplification in familial vs sporadic breast cancer, impact on behavior of the disease, 917
- in prostate cancer prognostics, S92
- testing in breast cancer specimens, S53

- Herbal medicines, abnormal laboratory test results and toxic effects due to use of, review of, 127

- Herpes simplex viruses, types 1 or 2, inaccuracy in commercial enzyme immunoassays in diagnosis of genital infections with, 839

- High-dose dexamethasone suppression test, in Cushing syndrome differential diagnosis, S42

## Histopathology

- bone marrow monocytic nodules in 21 cases with myelodysplasia, 874
- in malignant melanoma, S105
- myometrial inflammation in human delivery and its association with labor and infection, 217

- splenic small B-cell lymphoma, histopathologic features of, a study of 42 cases with definitive diagnosis by the World Health Organization classification, 335

- HLA-DR, four-color flow cytometry identifies virtually all cytogenetically abnormal bone marrow samples in workup of non-CML myeloproliferative disorders, 854

- HMLH1, microsatellite instability in chronic cholecystitis, as indicative of an early stage of carcinogenesis, 413

- HMLH2, microsatellite instability in chronic cholecystitis, 413

- Hormone therapy, adjuvant, distinguishing atrophy and high-grade prostatic intraepithelial neoplasia from prostatic

- adenocarcinoma with and without previous, with the aid of cytokeratin 5/6, 368
- Human chorionic gonadotropin, in prenatal screening for Down syndrome, S14
- Human glandular kallikrein 2, in prostate cancer prognostics, S93
- Human immunodeficiency virus (HIV)  
colonic spirochetosis and, 828  
modified ultrasensitive assay to detect quantified HIV-1 RNA of fewer than 50 copies per milliliter, 268
- Human papillomavirus (HPV)  
in cervical cancer screening, efficiency of Hybrid Capture 2 assay for, a study by the French Society for Clinical Pathology, 483, 492  
GLUT1 messenger RNA relates to HPV-dependent malignant transformation of cervical cancer, 691  
high-risk, possible role in non-oral habits-associated oral squamous cell carcinomas in Taiwan, 909
- Hybrid Capture 2 human papillomavirus DNA assay, in cervical cancer screening, efficiency of, a study by the French Society for Clinical Pathology, 483, 492
- Hypercortisolism, S40
- Hyperplasia  
atypical  
adenomatous, of the lung, survivin expression in, 712  
pathologic findings in specimens from reduction mammoplasty, 377  
follicular, follicular lysis, and progressive transformation of germinal centers, a sequential spectrum of morphologic evolution in lymphoid, 322
- IgG immunoblotting, isoelectric focusing with, in diagnosis of multiple sclerosis, 649, 672
- Image analysis, for DNA content measurement, S74
- Immunoassay. *See also* Enzyme immunoassays  
for measuring factor VIII levels in plasma, 34  
multiplexed, FIDIS, for simultaneous quantitative determination of antinuclear antibodies, evaluation and comparison with conventional methods, 676
- Immunocompromised patients, fatal disseminated adenovirus infections in, S75
- Immunofluorescence  
assessment of anti-endothelial cell antibodies to scleroderma-associated pulmonary fibrosis, study of and Western blot analysis and indirect, in 49 patients with scleroderma, 596  
new multiplexed immunoassay FIDIS, for simultaneous quantitative determination of antinuclear antibodies, comparison with, 676
- Immunohistochemistry  
androgen receptor expression in estrogen receptor-negative breast cancer, 725  
for babesiosis detection in formalin-fixed, paraffin-embedded tissue samples, 833  
B-cell transcription factors BSAP, Oct-2, and BOB.1 and the pan-B-cell markers CD20, CD22, and CD79a as useful in differential diagnosis of classic Hodgkin lymphoma, 767  
benign myoepithelial tumors of the breast have immunophenotypic characteristics similar to metaplastic matrix-producing and spindle cell carcinomas, 161  
bone marrow core biopsy specimens in AL (primary) amyloidosis, a morphologic and immunohistochemical study of 100 cases, 610  
bone marrow monocytic nodules in 21 cases with myelodysplasia, 874  
 $\beta$ -catenin as expressed aberrantly in tumors expressing shadow cells, 732  
CD23 expression in mantle cell lymphoma, clinicopathologic features of 18 cases, 760  
expression of T/NK-cell and plasma cell antigens in non-hematopoietic epithelioid neoplasms, a study of 447 cases, 64  
follicular hyperplasia, follicular lysis, and progressive transformation of germinal centers, a sequential spectrum of morphologic evolution in lymphoid hyperplasia, 322  
HER-2/*neu* testing in breast cancer, S53  
human mucin gene expression during normal and abnormal renal development, 544  
immunostaining of visceral leishmaniasis caused by *Leishmania infantum*, using monoclonal antibody (19-11) to the *Leishmania* homologue of receptors for activated C-kinase, 567  
intestinal intussusception associated with adenovirus infection in Mexican children, 845  
in malignant melanoma diagnosis, S106  
in malignant melanoma staging, S116  
mesoappendix infiltration as predicting worse prognosis in incidental neuroendocrine tumors of the appendix, 706  
MIB-1 staining of cytology smears for distinguishing low-grade from high-grade neuroendocrine neoplasms, 209  
microsatellite instability in chronic cholecystitis, as indicative of an early stage of carcinogenesis, 413  
minimum formalin fixation time for consistent estrogen receptor immunohistochemical staining of invasive breast carcinoma, 86  
mos expression in ependymal gliomas, 699  
neuroendocrine carcinomas of the testis, clinicopathologic and immunohistochemical study of ten cases, 182  
peroxisome proliferator-activated receptor  $\gamma$ , expression in follicular-patterned thyroid lesions, caveats for the use of, 175  
platelet-derived growth factor- $\alpha\alpha$  receptor expression is associated with tumor progression in clear cell renal cell carcinoma, 107
- Immunohistopathology, diagnostic, adding CD phenotypes to our toolbox, 13
- Immunophenotyping  
benign myoepithelial tumors of the breast have immunophenotypic characteristics similar to metaplastic matrix-producing and spindle cell carcinomas, 161  
by flow cytometry  
CD10 expression in hairy cell leukemia, 228  
down-regulation of pan-T-cell antigens, particularly CD7, in acute infectious mononucleosis, 49  
four-color, as identifying virtually all cytogenetically abnormal bone marrow samples in workup of non-CML myeloproliferative disorders, 854  
for myelodysplastic syndrome diagnosis, S34
- Impedance platelet counters, spurious automated platelet count, enumeration of yeast forms as platelets by Cell-DYN 4000, 882
- Incident reports, classifying to identify problems that jeopardize patient safety, 18



# Infection

- immature granulocyte measurement using Sysmex XE-2100, relation to sepsis and, 795
- myometrial inflammation in human delivery and its association with labor and, 217
- Inferior petrosal sinus sampling, in Cushing syndrome differential diagnosis, S43
- Inflammation
  - intraoperative consultation for renal lesions, implications and diagnostic pitfalls in 324 cases, 528
  - myometrial, in human delivery and its association with labor and infection, 217
- Inhibin A, dimeric, in prenatal screening for Down syndrome, S17
- In situ hybridization. *See also* Fluorescence in situ hybridization (FISH)
  - human mucin gene expression during normal and abnormal renal development, 544
  - intestinal intussusception associated with adenovirus infection in Mexican children, 845
- Insulin-like growth factor-I receptor, and PTEN protein expression in endometrial carcinoma, correlation with bax and bcl-2 expression, microsatellite instability status, and outcome, 78
- Integrated screening test, for Down syndrome, S20
- Integrins, in prostate cancer prognostics, S91
- Interinstitutional pathology consultations, a reassessment, 405
- International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, addendum to the, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312
- International normalized ratio
  - capillary whole blood testing by new portable analyzer, comparison with standard determination of, 28
  - six- and four-week intervals in surveillance of oral anticoagulation therapy, comparison between, 944
- Intestine, intussusception associated with adenovirus infection in Mexican children, 845
- Intussusception, intestinal, associated with adenovirus infection in Mexican children, 845
- inv(16)(p13q22), dysplasia and high proliferation rate as common in acute myeloid leukemia with, 236
- Ischemia, myocardial, prognostic value of Ortho Vitros cardiac troponin I assay in patients with symptoms of, risk stratification using European Society of Cardiology/American Society of Cardiology recommended cutoff values, 114
- Isoelectric focusing, with IgG immunoblotting, in diagnosis of multiple sclerosis, 649, 672
- Isoforms, urinary, of prion particles, S48
- Ixodes scapularis*, in babesiosis transmission, two atypical cases from Minnesota and a review, 554

# J

- Joints, cystic fibrosis and, S8

# K

- KAI-1 gene, in prostate cancer prognostics, S92
- Ki-67 antigen

- as cell proliferation marker in breast cancer, S78
- mesoappendix infiltration as predicting worse prognosis in incidental neuroendocrine tumors of appendix, a clinicopathologic and immunohistochemical study of 15 cases, 706
- proliferation indices in glioblastoma multiforme by whole tissue section vs tissue microarray, 902

# Kidney

- human mucin gene expression during normal and abnormal renal development, 544
- intraoperative consultation for renal lesions, implications and diagnostic pitfalls in 324 cases, 528
- renal cell carcinoma, platelet-derived growth factor- $\alpha\alpha$  receptor expression is associated with tumor progression in clear cell, 107
- Klebsiella pneumoniae*, extended-spectrum  $\beta$ -lactamase-producing, cross-class resistance to non- $\beta$ -lactam antimicrobials in, 265

# L

- Labor, myometrial inflammation in human delivery and its association with infection and, 217
- Laboratory error, classifying incident reports to identify problems that jeopardize, 18
- $\beta$ -Lactamase, cross-class resistance to non- $\beta$ -lactam antimicrobials, in extended-spectrum  $\beta$ -lactamase-producing *Klebsiella pneumoniae*, 265
- Langerhans cells, invasive potential of noninvasive bladder carcinoma, an electron microscopy study, 188
- Large-needle biopsy, and hepatitis C virus RNA detection in formalin-fixed paraffin-embedded thin-needle liver biopsy specimens, 536
- Laser scanning cytometer, for DNA content measurement, S75
- Leishmania infantum*, immunostaining of visceral leishmaniasis caused by, using monoclonal antibody (19-11) to the *Leishmania* homologue of receptors for activated C-kinase, 567
- Leishmaniasis, immunostaining of visceral, caused by *Leishmania infantum*, using monoclonal antibody (19-11) to the *Leishmania* homologue of receptors for activated C-kinase, 567
- Leukemia
  - acute myeloid
    - with inv(16)(p13q22), dysplasia and high proliferation rate as common in, 236
    - and myelodysplastic syndrome, S34
  - ALK-positive anaplastic large cell lymphoma with leukemic peripheral blood involvement as clinicopathologic entity with unfavorable prognosis, report of three cases and review of the literature, 617
  - B-cell, CD20 and FMC7 expression in, diagnostic significance of, 754
  - chronic lymphocytic, mantle cell lymphoma and, 760
  - chronic myeloid, dysgranulopoiesis in, diagnostic significance of detecting, 778
  - chronic myelomonocytic, histologic and immunohistochemical study of bone marrow monocytic nodules in 21 cases with myelodysplasia, 874
  - hairy cell, CD10 expression in, 228



- non-chronic myelogenous, four-color flow cytometry identifies virtually all cytogenetically abnormal bone marrow samples in workup of non-CML myeloproliferative disorders, 854
- T-cell
- large granular lymphocyte, of donor origin, after allogeneic bone marrow transplantation, 626
  - mature, detection by flow cytometry using anti-T-cell receptor  $V_{\beta}$  antibodies, 785
- Liquid-based cytology, atypical squamous cells of undetermined significance cannot exclude high-grade squamous intraepithelial lesion, follow-up study of conventional and liquid-based preparations in a high-risk population, 392
- Liver
- cystic fibrosis, S7
  - endoscopic ultrasound-guided fine-needle aspiration for detecting lesions of, a cytopathologist's perspective, 309, 351
  - hepatitis C virus RNA detection in formalin-fixed paraffin-embedded thin-needle biopsy specimens, 536
- Lobectomy, wedge resection margin distances and residual adenocarcinoma in specimens from, 720
- Loss of heterozygosity
- clonal analysis of bilateral mammary carcinomas, by clinical evaluation and partial allelotyping, 168
  - flow cytometric sorting of paraffin-embedded tumor tissues considerably improves molecular genetic analysis, 327
- Low-dose dexamethasone suppression test, for hypercortisolism, S40
- Luminex 100 system, in FIDIS technology, 676
- Lung
- cystic fibrosis, S6
  - neuroendocrine neoplasms of, MIB-1 immunohistochemical staining of cytology smears for distinguishing low-grade from high-grade, 209
  - primary mucoepidermoid carcinoma of the pleura, clinicopathologic study of two cases, 381
  - pulmonary embolism, automated, latex-enhanced turbidimetric D-dimer test (Advanced D-Dimer), evaluation of, and usefulness in exclusion of acute thromboembolic disease, 930
  - pulmonary fibrosis, assessment of anti-endothelial cell antibodies to scleroderma-associated, study of indirect immunofluorescent and Western blot analysis in 49 patients with scleroderma, 596
  - survivin expression in atypical adenomatous hyperplasia of the, 712
  - wedge resection margin distances and residual adenocarcinoma in lobectomy specimens, 720
- Lymph nodes
- endoscopic ultrasound-guided fine-needle aspiration for detecting lesions of, a cytopathologist's perspective, 309, 351
  - loss of p27 nuclear expression in prognostically favorable subset of well-differentiated pancreatic endocrine neoplasms, 685
  - sentinel, in malignant melanoma prognosis, S111, S115
- Lymphoma
- ALK-positive anaplastic large cell, with leukemic peripheral blood involvement, as clinicopathologic entity with unfavorable prognosis, report of three cases and review of the literature, 617
- B-cell
- CD20 and FMC7 expression in, diagnostic significance of, 754
  - flow cytometric sorting of paraffin-embedded tumor tissues considerably improves molecular genetic analysis, 327
  - diffuse large B-cell, in patients with lymphoplasmacytic lymphoma/Waldenström macroglobulinemia, clinicopathologic features of 12 cases, 246
  - follicular, follicular hyperplasia, follicular lysis, and progressive transformation of germinal centers, a sequential spectrum of morphologic evolution in lymphoid hyperplasia, 322
  - Hodgkin, B-cell transcription factors BSAP, Oct-2, and BOB.1 and the pan-B-cell markers CD20, CD22, and CD79a as useful in differential diagnosis of classic, 767
  - mantle cell, CD23 expression in, clinicopathologic features of 18 cases, 760
  - peripheral T-cell, differential expression of T-bet, required for Th1 T-cell development, in, 866
  - splenic small B-cell, histopathologic features of, a study of 42 cases with definitive diagnosis by the World Health Organization classification, 335
- Lysis, follicular, and follicular hyperplasia and progressive transformation of germinal centers, a sequential spectrum of morphologic evolution in lymphoid hyperplasia, 322

## M

- Macroglobulinemia, Waldenström, diffuse large B-cell lymphoma in patients with lymphoplasmacytic lymphoma, 246
- Mammoplasty, reduction, pathologic findings in specimens from, 377
- Marginal zones, splenic small B-cell lymphoma, histopathologic features of, a study of 42 cases with definitive diagnosis by the World Health Organization classification, 335
- Margin distance
- factors associated with ipsilateral breast failure and distant metastases in patients with invasive breast carcinoma treated with breast-conserving therapy, clinicopathologic study of 607 neoplasms from 583 patients, 485, 500
  - wedge resection, and residual adenocarcinoma in lobectomy specimens, 720
- Medical education, curriculum content and evaluation of resident competency in anatomic pathology, a proposal, 652
- Melanocytic lesions, are en face frozen sections accurate for diagnosing margin status in, 203
- Melanocytic nevi, melanoma distinguished from, S106
- Melanoma, malignant, predisposition, diagnosis, prognosis, and staging, S101
- Melastatin, as malignant melanoma biomarker, S111
- Mesoappendix, infiltration of, as predicting worse prognosis in incidental neuroendocrine tumors of the appendix, a clinicopathologic and immunohistochemical study of 15 cases, 706
- Messenger RNA, real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
- Metalloproteinases, matrix, as malignant melanoma biomarker, S111
- Metastasis
- factors associated with ipsilateral breast failure and distant, in patients with invasive breast carcinoma treated with breast-conserving therapy, clinicopathologic study of 607 neoplasms from 583 patients, 485, 500

- loss of p27 nuclear expression in prognostically favorable subset of well-differentiated pancreatic endocrine neoplasms, 685
- of malignant melanoma, S117
- real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
- $\alpha$ -Methylacyl-CoA racemase
  - monoclonal antibody P504S in atypical prostatic glandular proliferation workup, diagnostic usefulness of, 737
  - in prostate cancer prognostics, S93
- Mexico, intestinal intussusception associated with adenovirus infection in children in, 845
- MIB-1
  - as cell proliferation marker in breast cancer, S80
  - for distinguishing low-grade from high-grade neuroendocrine neoplasms, 209
- Microinvasion, invasive potential of noninvasive bladder carcinoma, an electron microscopy study, 188
- Microsatellite instability
  - in chronic cholecystitis, as indicative of an early stage of gall-bladder carcinogenesis, 413
  - insulin-like growth factor-I receptor and PTEN protein expression in endometrial carcinoma, correlation with bax and bcl-2 expression, outcome, and status of, 78
  - in prostate cancer prognostics, S93
- Microscopic polyangiitis, addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312
- Microspheres, in FIDIS technology, 676
- Microvessel density, in prostate cancer prognostics, S90
- Molecular diagnostics
  - for cystic fibrosis, S3
  - for prostate cancer, S85
- Molecular genetics
  - flow cytometric sorting of paraffin-embedded tumor tissues considerably improves analysis by, 327
  - in prostate cancer prognostics, S89
- Monoclonal antibodies
  - BerEP-4 in real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
  - CD20 and FMC7 expression in B-cell disorders, diagnostic significance of, 754
  - immunostaining of visceral leishmaniasis caused by *Leishmania infantum*, using monoclonal antibody (19-11) to the *Leishmania* homologue of receptors for activated C-kinase, 567
  - P504S in atypical prostatic glandular proliferation workup, diagnostic usefulness of, 737
- Monocytic nodules, bone marrow, histologic and immunohistochemical study of, in 21 cases with myelodysplasia, 874
- Mononucleosis, acute infectious, down-regulation of pan-T-cell antigens, particularly CD7, in, 49
- Morphometry, in prostate cancer prognostics, S89
- mos protein, expression in ependymal gliomas, 699
- Mouth cancer, high-risk human papillomaviruses' possible role in non-oral habits-associated oral squamous cell carcinomas in Taiwan, 909
- MUC6* gene, human mucin gene expression during normal and abnormal renal development, 544
- Mucin, human mucin gene expression during normal and abnormal renal development, 544
- Mucinous neoplasms, intraductal papillary-mucinous neoplasm of the pancreas, endoscopic ultrasound-guided fine-needle aspiration for detecting, findings and limitations of cytologic samples obtained by, 398
- Mucocoele-like lesions, aspiration biopsy of mammary lesions with abundant extracellular mucinous material, review of 43 cases with surgical follow-up, 194
- Multidrug resistance factor, in prostate cancer prognostics, S92
- Multiple sclerosis, cerebrospinal fluid oligoclonal bands in diagnosis of, isoelectric focusing with IgG immunoblotting compared with high-resolution agarose gel electrophoresis and cerebrospinal fluid IgG index, 649, 672
- Mycobacterium*, high proportion of novel species identified by 16S rDNA analysis among slowly growing AccuProbe-negative strains in a clinical study, 560
- Myelodysplastic syndrome, S25
  - histologic and immunohistochemical study of bone marrow monocytic nodules in 21 cases with, 874
- Myeloid antigens, four-color flow cytometry identifies virtually all cytogenetically abnormal bone marrow samples in workup of non-CML myeloproliferative disorders, 854
- Myeloproliferative disorders, four-color flow cytometry identifies virtually all cytogenetically abnormal bone marrow samples in workup of non-CML, 854
- Myoepithelial cells, benign myoepithelial tumors of the breast have immunophenotypic characteristics similar to metaplastic matrix-producing and spindle cell carcinomas, 161
- Myometrium, inflammation of, in human delivery, and its association with labor and infection, 217

## N

- National Committee for Clinical Laboratory Standards (NCCLS), reference intervals standard of, 662
- Needle biopsy. *See also* Fine-needle aspiration biopsy
  - hepatitis C virus RNA detection in formalin-fixed paraffin-embedded thin-needle biopsy specimens, 536
  - monoclonal antibody P504S in atypical prostatic glandular proliferation workup, diagnostic usefulness of, 737
- Neoplasia, high-grade prostatic intraepithelial, distinguishing from prostatic adenocarcinoma with and without previous adjuvant hormone therapy with the aid of cytokeratin 5/6, 368
- Neuroendocrine tumors
  - of the appendix, mesoappendix infiltration as predicting worse prognosis in incidental, a clinicopathologic and immunohistochemical study of 15 cases, 706
  - carcinomas of the testis, clinicopathologic and immunohistochemical study of ten cases, 182
  - of lung and gastrointestinal tract, MIB-1 immunohistochemical staining of cytology smears for distinguishing low-grade from high-grade, 209
- News and Notices, 140, 291, 635
- NK-cell antigens, expression of T-cell and plasma cell antigens and, in nonhematopoietic epithelioid neoplasms, an immunohistochemical study of 447 cases, 64
- Nuchal translucency, in prenatal screening for Down syndrome, S19

Nuclear factor  $\kappa$ B, in prostate cancer prognostics, S93  
 Nuclear matrix proteins, in prostate cancer prognostics, S90

## O

Octamer-binding transcription factor 2 (Oct-2), in differential diagnosis of classic Hodgkin lymphoma, usefulness of, 767  
 Odontogenic cyst, calcifying,  $\beta$ -catenin as expressed aberrantly in tumors expressing shadow cells, 732  
 Oligoclonal bands, in cerebrospinal fluid, in diagnosis of multiple sclerosis, isoelectric focusing with IgG immunoblotting compared with high-resolution agarose gel electrophoresis and cerebrospinal fluid IgG index, 649, 672  
 Oncogenes, dominant, in prostate cancer prognostics, S91  
 Optical scatter, spurious automated platelet count, enumeration of yeast forms as platelets by Cell-DYN 4000, 882  
 Oral anticoagulation therapy  
   capillary whole blood testing by new portable analyzer, comparison with standard determination of international normalized ratio, 28  
   six- and four-week intervals in surveillance of, comparison between, 944  
 Oral cancer. *See* Mouth cancer  
 Ortho Vitros cardiac troponin I assay, prognostic value of, in patients with symptoms of myocardial ischemia, risk stratification using European Society of Cardiology/American Society of Cardiology recommended cutoff values, 114

## P

*p16* gene  
   in malignant melanoma, S102, S110  
   in prostate cancer prognostics, S92  
*p21* protein, as prognostic factor in breast cancer, S81  
*p27* (kip1) protein  
   loss of nuclear expression in prognostically favorable subset of well-differentiated pancreatic endocrine neoplasms, 685  
   as prognostic factor in breast cancer, S81  
*p53* protein, in prostate cancer prognostics, S92  
*P504S*, in atypical prostatic glandular proliferation workup, diagnostic usefulness of, 737  
 Pan-B-cell antigens, CD20, CD22, and CD79a as useful in differential diagnosis of classic Hodgkin lymphoma, 767  
 Pancreas  
   cystic fibrosis, S7  
   endocrine neoplasms of, loss of *p27* nuclear expression in prognostically favorable subset of well-differentiated, 685  
   endoscopic ultrasound-guided fine-needle aspiration  
     for detecting lesions of, a cytopathologist's perspective, 309, 351  
     for intraductal papillary-mucinous neoplasm of the, findings and limitations of cytologic samples obtained by, 398  
 Pan-T-cell antigens, particularly CD7, down-regulation of, in acute infectious mononucleosis, 49  
 Papanicolaou smear, atypical squamous cells of undetermined significance cannot exclude high-grade squamous intraepithelial

lesion, follow-up study of conventional and liquid-based preparations in a high-risk population, 392

## Papillary tumors

intraductal papillary-mucinous neoplasm of the pancreas, endoscopic ultrasound-guided fine-needle aspiration for detecting, findings and limitations of cytologic samples obtained by, 398  
 thyroid carcinoma, follicular variant of, molecular profile and clinical-pathologic features of, an unusually high prevalence of *ras* mutations, 71  
 Papillomavirus, human. *See* Human papillomavirus (HPV)  
 Paraffin-embedded tissue  
   flow cytometric sorting of tumor tissues considerably improves molecular genetic analysis, 327  
   hepatitis C virus RNA detection in formalin-fixed thin-needle liver biopsy specimens, 536  
   immunohistochemical assay development for detection of babesiosis in formalin-fixed, 833  
   immunostaining of visceral leishmaniasis caused by *Leishmania infantum*, using monoclonal antibody (19-11) to the *Leishmania* homologue of receptors for activated, 567  
   multiplex DNA short tandem repeat analysis, a useful method for determining provenance of minute fragments of formalin-fixed, 746  
 Pathology. *See also* Pathology consultations  
   curriculum content and evaluation of resident competency in anatomic pathology, a proposal, 652  
 Pathology consultations  
   clinical pathology, coagulation factor utilization in hospitalized adults improved by, 938  
   interinstitutional pathology, a reassessment, 405  
   intraoperative, for renal lesions, implications and diagnostic pitfalls in 324 cases, 528  
 Patient safety, classifying incident reports to identify problems that jeopardize, 18  
*PAX8-PPAR $\gamma$*  rearrangement, follicular variant of papillary thyroid carcinoma, molecular profile and clinical-pathologic features of, an unusually high prevalence of *ras* mutations in, 71  
 Peripheral blood, ALK-positive anaplastic large cell lymphoma with leukemic peripheral blood involvement as clinicopathologic entity with unfavorable prognosis, report of three cases and review of the literature, 617  
 Peroxisome proliferator-activated receptor  $\gamma$ , expression in follicular-patterned thyroid lesions, caveats for the use of immunohistochemical studies, 175  
 Phosphorylation, of HER-2/*neu*, S65  
 Pilomatricoma,  $\beta$ -catenin as expressed aberrantly in tumors expressing shadow cells, 732  
 Plasma, factor VIII levels in, comparison of three methods for measurement of, 34  
 Plasma ACTH test, in Cushing syndrome differential diagnosis, S42  
 Plasma cell antigens, expression of T/NK-cell antigens and, in non-hematopoietic epithelioid neoplasms, an immunohistochemical study of 447 cases, 64  
 Plasma cortisol test, for hypercortisolism, S41  
 Platelet count, spurious automated, enumeration of yeast forms as platelets by Cell-DYN 4000, 882  
 Platelet-derived growth factor- $\alpha\alpha$  receptor, expression of associated with tumor progression in clear cell renal cell carcinoma, 107

- Pleura, primary mucoepidermoid carcinoma of, clinicopathologic study of two cases, 381
- Polyangiitis, microscopic, addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312
- Polymerase chain reaction (PCR)  
   in clonal analysis of bilateral mammary carcinomas, by clinical evaluation and partial allelotyping, 168  
   in cystic fibrosis diagnosis, S9  
   real-time  
     for HER-2/*neu* testing, S60  
     intestinal intussusception associated with adenovirus infection in Mexican children, 845  
   reverse-transcriptase  
     for *bcr-abl* fusion transcript quantitation, 42  
     hepatitis C virus RNA detection in formalin-fixed paraffin-embedded thin-needle liver biopsy specimens, 536  
     in malignant melanoma staging, S116  
     real-time, for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
- Polypsis, familial adenomatous, somatic mutations in, nuclear translocation of  $\beta$ -catenin requires more than biallelic *APC* inactivation, 418
- Population-based reference intervals, data warehouse as foundation for, 662
- PRB* gene, in prostate cancer prognostics, S92
- Pregnancy-associated plasma protein A, in prenatal screening for Down syndrome, S19
- Prenatal screening, for Down syndrome, S14
- Prion diseases, recent developments toward diagnostic tests for, S46
- Progesterone, HER-2/*neu* status and prediction of response to, S63
- Proliferation  
   dysplasia and high proliferation rate as common in acute myeloid leukemia with *inv(16)(p13q22)*, 236  
   myeloproliferative disorders, four-color flow cytometry identifies virtually all cytogenetically abnormal bone marrow samples in workup of non-CML, 854
- Proliferation indices, in glioblastoma multiforme by whole tissue section vs tissue microarray, comparison of, 902
- Prostate cancer  
   carcinoma, predicting tumor volume in radical prostatectomy specimens from patients with, 386  
   distinguishing atrophy and high-grade prostatic intraepithelial neoplasia from adenocarcinoma with and without previous adjuvant hormone therapy with the aid of cytokeratin 5/6, 368  
   monoclonal antibody P504S in atypical prostatic glandular proliferation workup, diagnostic usefulness of, 737  
   prognostic factors in, S85
- Prostatectomy, radical, predicting tumor volume in specimens from patients with prostate cancer, 386
- Prostate-specific antigen, as prostate cancer prognostic factor, S87
- Prostate-specific membrane antigen, as prostate cancer prognostic factor, S88
- Proteases, tumor invasion-associated, in prostate cancer prognostics, S91
- Proteasome, in prostate cancer prognostics, S93
- Proteinase 3, recombinant protein to analyze autoantibodies to, in systemic vasculitis, 586
- Prothrombin time  
   capillary whole blood testing by new portable analyzer, comparison with standard determination of international normalized ratio, 28  
   six- and four-week intervals in surveillance of oral anticoagulation therapy, comparison between, 944
- Pseudo-Cushing syndrome, S38, S41
- Pseudotumors, inflammatory, of the spleen, associated with a clonal Epstein-Barr virus genome, case report and review of the literature, 56
- PTEN (phosphatase and tensin homolog deleted on chromosome 10)  
   and insulin-like growth factor-I receptor expression in endometrial carcinoma, correlation with *bax* and *bcl-2* expression, microsatellite instability status, and outcome, 78  
   in prostate cancer prognostics, S92
- ## Q
- Quad test, for Down syndrome, S17
- Quality control, addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312
- ## R
- ras* mutations, follicular variant of papillary thyroid carcinoma, molecular profile and clinical-pathologic features of, an unusually high prevalence of, 71
- Recombinant protein, to analyze autoantibodies to proteinase 3 in systemic vasculitis, 586
- Recurrence, factors associated with ipsilateral breast failure and distant metastases in patients with invasive breast carcinoma treated with breast-conserving therapy, clinicopathologic study of 607 neoplasms from 583 patients, 485, 500
- Reference intervals, population-based, data warehouse as foundation for, 662, 817
- Refractory anemia with excess blasts, S30, S33
- Refractory cytopenia with multilineage dysplasia, S29, S33
- Renal-limited vasculitis, addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312
- Reproductive system, cystic fibrosis and, S9
- ret/PTC* rearrangement, follicular variant of papillary thyroid carcinoma, molecular profile and clinical-pathologic features of, an unusually high prevalence of *ras* mutations, 71
- Rheumatic diseases, new multiplexed immunoassay FIDIS, for simultaneous quantitative determination of antinuclear antibodies, evaluation and comparison with conventional methods, 676
- RNA  
   hepatitis C virus RNA detection in formalin-fixed paraffin-embedded thin-needle liver biopsy specimens, 536



- HIV-1 RNA of fewer than 50 copies per milliliter, modified ultrasensitive assay to detect quantified, 268
- real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
- Roseomonas*, bacteriologic characterization of 36 strains of, and proposal of *Roseomonas mucosa* sp nov and *Roseomonas gilardii* subsp *rosea* subsp nov, 256
- Roseomonas gilardii* subsp *rosea* subsp nov, proposal of, 256
- Roseomonas mucosa* sp nov, proposal of, 256

## S

- Salivary cortisol test, for hypercortisolism, S41
- Salivary gland, and primary mucoepidermoid carcinoma of the pleura, clinicopathologic study of two cases, 381
- Scleroderma, assessment of anti-endothelial cell antibodies to scleroderma-associated pulmonary fibrosis, study of indirect immunofluorescent and Western blot analysis in 49 patients with, 596
- Screening
- for cervical cancer, efficiency of Hybrid Capture 2 human papillomavirus DNA assay, a study by the French Society for Clinical Pathology, 483, 492
  - for malignant melanoma, S104
  - prenatal, for Down syndrome, S14
- Second opinions, interinstitutional pathology consultations, a reassessment, 405
- Sepsis, immature granulocyte measurement using Sysmex XE-2100, relation to infection and, 795
- Shadow cells,  $\beta$ -catenin as expressed aberrantly in tumors expressing, pilomatricoma, craniopharyngioma, and calcifying odontogenic cyst, 732
- Short tandem repeats, multiplex DNA short tandem repeat analysis, a useful method for determining provenance of minute fragments of formalin-fixed, paraffin-embedded tissue, 746
- 16S ribosomal DNA
- in bacteriologic characterization of 36 strains of *Roseomonas*, and proposal of *Roseomonas mucosa* sp nov and *Roseomonas gilardii* subsp *rosea* subsp nov, 256
  - high proportion of novel *Mycobacterium* species identified by, among slowly growing AccuProbe-negative strains in a clinical study, 560
- SK-BR-3 breast carcinoma cell line, real-time reverse-transcriptase polymerase chain reaction assay for GA733-2 mRNA in detection of metastatic carcinoma cells in serous effusions, 822, 888
- Skin cancer
- en face frozen section accuracy for diagnosing margin status in melanocytic lesions, 203
  - malignant melanoma, S101
- skp2 protein, as prognostic factor in breast cancer, S81
- Slot blot analysis, for HER-2/*neu* testing, S56
- Somatostatin receptor radionuclide imaging, in Cushing syndrome differential diagnosis, S44
- Southern blot analysis, for HER-2/*neu* testing, S56
- S phase, DNA ploidy in breast cancer, S72
- Spirochetosis, colonic, in children and adults, 820, 828

## Spleen

- inflammatory pseudotumor of, associated with a clonal Epstein-Barr virus genome, case report and review of the literature, 56
- small B-cell lymphoma of, histopathologic features of, a study of 42 cases with definitive diagnosis by the World Health Organization classification, 335

## Squamous cells

- expression of caveolin-1 and caveolin-2 in urothelial carcinoma of urinary bladder correlates with tumor grade and squamous differentiation, 93
- high-risk human papillomaviruses' possible role in non-oral habits-associated oral squamous cell carcinomas in Taiwan, 909

Squamous intraepithelial lesion, high-grade, atypical squamous cells of undetermined significance cannot exclude, follow-up study of conventional and liquid-based preparations in a high-risk population, 392

Survivin, expression in atypical adenomatous hyperplasia of the lung, 712

Sysmex XE-2100, immature granulocyte measurement using, relation to infection and sepsis, 795

## T

- Taiwan, high-risk human papillomaviruses' possible role in non-oral habits-associated oral squamous cell carcinomas in, 909
- T-box transcription factors, differential expression of T-bet, required for Th1 T-cell development, in peripheral T-cell lymphoma, 866
- T-cell antigens
- down-regulation of pan-T-cell antigens, particularly CD7, in acute infectious mononucleosis, 49
  - expression of NK-cell and plasma cell antigens and, in non-hematopoietic epithelioid neoplasms, an immunohistochemical study of 447 cases, 64
- T-cell receptors, detection of mature T-cell leukemias by flow cytometry using anti-T-cell receptor  $V_{\beta}$  antibodies, 785
- T-cells
- differential expression of T-bet, required for Th1 T-cell development, in peripheral T-cell lymphoma, 866
  - mature T-cell leukemias, detection by flow cytometry using anti-T-cell receptor  $V_{\beta}$  antibodies, 785
  - T-cell large granular lymphocyte leukemia, of donor origin, after allogeneic bone marrow transplantation, 626
- Telomerase, in prostate cancer prognostics, S93
- Testes, neuroendocrine carcinomas of, clinicopathologic and immunohistochemical study of ten cases, 182
- Th1 T-cells, differential expression of T-bet, required for development of, in peripheral T-cell lymphoma, 866
- Th2 T-cells, differential expression of T-bet, required for Th1 T-cell development, in peripheral T-cell lymphoma, 866
- Thin-needle biopsy, hepatitis C virus RNA detection in formalin-fixed paraffin-embedded specimens, 536
- Thorax, primary mucoepidermoid carcinoma of the pleura, clinicopathologic study of two cases, 381
- Thromboembolic disease, automated, latex-enhanced turbidimetric D-dimer test (Advanced D-Dimer), evaluation of, and usefulness in exclusion of acute, 930



- Thyroid gland
  - carcinoma of, papillary, follicular variant of, molecular profile and clinical-pathologic features of, an unusually high prevalence of *ras* mutations, 71
  - peroxisome proliferator-activated receptor  $\gamma$  expression in follicular-patterned thyroid lesions, caveats for the use of immunohistochemical studies, 175
- Tick-borne pathogens, in babesiosis transmission, two atypical cases from Minnesota and a review, 554
- Tissue contamination, multiplex DNA short tandem repeat analysis, a useful method for determining provenance of minute fragments of formalin-fixed, paraffin-embedded tissue, 746
- Tissue microarray, proliferation indices in glioblastoma multiforme by whole tissue section vs. comparison of, 902
- Tonsils, prions detected in tissue from, S49
- Toxicology, abnormal laboratory test results and toxic effects due to use of herbal medicines, review of, 127
- Transcriptional profiling
  - for HER-2/*neu* testing, S60
  - in prostate cancer prognostics, S94
- Transcription factors
  - B-cell, BSAP, Oct-2, and BOB.1 and the pan-B-cell markers CD20, CD22, and CD79a as useful in differential diagnosis of classic Hodgkin lymphoma, 767
  - nuclear factor  $\kappa$ B in prostate cancer prognostics, S93
  - T-box, differential expression of T-bet, required for Th1 T-cell development, in peripheral T-cell lymphoma, 866
- Transfusion-associated disease, babesiosis, two atypical cases from Minnesota and a review, 554
- Trastuzumab, HER-2/*neu* status and prediction of response to, S60
- Triple test, for Down syndrome, S15
- Tumor grade
  - factors associated with ipsilateral breast failure and distant metastases in patients with invasive breast carcinoma treated with breast-conserving therapy, clinicopathologic study of 607 neoplasms from 583 patients, 485, 500
  - as prostate cancer prognostic factor, S87
- Tumor markers
  - HER-2/*neu* for breast cancer, S64
  - for prostate cancer, S85
- Tumor stage
  - as prostate cancer prognostic factor, S87
  - staging malignant melanoma, S111
- Tumor suppressor genes, in prostate cancer prognostics, S92
- Tumor volume
  - factors associated with ipsilateral breast failure and distant metastases in patients with invasive breast carcinoma treated with breast-conserving therapy, clinicopathologic study of 607 neoplasms from 583 patients, 485, 500
  - predicting, in radical prostatectomy specimens from patients with prostate cancer, 386
  - as prostate cancer prognostic factor, S87
- Turbidimetry, automated, latex-enhanced turbidimetric D-dimer test (Advanced D-Dimer), evaluation of, and usefulness in exclusion of acute thromboembolic disease, 930
- Tyr-Tyr-Arg motif, and prion disease, S51

## U

- Ultrasound, endoscopic ultrasound-guided fine-needle aspiration a cytopathologist's perspective, 309, 351

- for intraductal papillary-mucinous neoplasm of the pancreas, findings and limitations of cytologic samples obtained by, 398
- Ultrastructure, invasive potential of noninvasive bladder carcinoma, an electron microscopy study, 188
- Urinary free cortisol test, for hypercortisolism, S40
- Urothelium
  - expression of caveolin-1 and caveolin-2, in urothelial carcinoma of urinary bladder correlates with tumor grade and squamous differentiation, 93
  - invasive potential of noninvasive bladder carcinoma, an electron microscopy study, 188

## V

- Variant Creutzfeldt-Jakob disease, recent developments toward diagnostic tests for, S46
- Vascularity, tumor, in prostate cancer prognostics, S90
- Vascular system, cystic fibrosis and, S9
- Vasculitis
  - renal-limited, addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312
  - systemic, recombinant protein to analyze autoantibodies to proteinase 3 in, 586
- Venous thrombosis, deep, automated, latex-enhanced turbidimetric D-dimer test (Advanced D-Dimer), evaluation of, and usefulness in exclusion of acute thromboembolic disease, 930

## W

- Waldenström macroglobulinemia, diffuse large B-cell lymphoma in patients with lymphoplasmacytic lymphoma/, clinicopathologic features of 12 cases, 246
- Warfarin, six- and four-week intervals in surveillance of oral anticoagulation therapy, comparison between, 944
- Wedge resection, margin distances and residual adenocarcinoma in lobectomy specimens, 720
- Wegener granulomatosis, addendum to the International Consensus Statement on Testing and Reporting of Antineutrophil Cytoplasmic Antibodies, quality control guidelines, comments, and recommendations for testing in other autoimmune diseases, 312
- Western blot analysis
  - assessment of anti-endothelial cell antibodies to scleroderma-associated pulmonary fibrosis, study of indirect immunofluorescent analysis and, in 49 patients with scleroderma, 596
  - for prion detection, S48
- World Health Organization classification, histopathologic features of splenic small B-cell lymphoma, a study of 42 cases with definitive diagnosis by the, 335

## Y

- Yeast, spurious automated platelet count, enumeration of yeast forms as platelets by Cell-DYN 4000, 882
- Young Investigator Awards Program Abstracts, 271

